OMB Number: 4040-0004
Expiration Date: 12/31/2022

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: Completed by Grants.gov upon submission.

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier: Connecticut

8. APPLICANT INFORMATION:

* a. Legal Name: Naugatuck Valley Council of Governments

* b. Employer/Taxpayer Identification Number (EIN/TIN): 47-1630360

* c. UEI: K6NNBKTK3MG7

d. Address:

* Street1: 49 Leavenworth Street, 3rd Floor
Street2:
* City: Waterbury
County/Parish: Connecticut
* State: CT: Connecticut
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 06702-2110

e. Organizational Unit:

Department Name: Environmental Planning

Division Name: Habitat Restoration

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Mr.
* First Name: Aaron
Middle Name:
* Last Name: Budris
Suffix:

Title: Senior Regional Planner

Organizational Affiliation: Naugatuck Valley Council of Governments

* Telephone Number: 2034890362
Fax Number:

* Email: abudris@nvcogct.gov

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

E: Regional Organization

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Department of Commerce

11. Catalog of Federal Domestic Assistance Number:

11.463

CFDA Title:

Habitat Conservation

*** 12. Funding Opportunity Number:**

NOAA-NMFS-HCPO-2022-2007209

* Title:

NOAA’s Restoring Fish Passage through Barrier Removal Notice of Funding Opportunity under the IIJA

13. Competition Identification Number:

3039025

Title:

NOAA’s Restoring Fish Passage through Barrier Removal Notice of Funding Opportunity under the IIJA

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Project Title - "It's About Dam Time: Removing Kinneytown Dam to Restore Fish Passage and Advance Environmental Justice"

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: 1,3-5

* b. Program/Project: 1,3-5

Attach an additional list of Program/Project Congressional Districts if needed.

NRWS_Congressional_Districts.pdf | Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 01/01/2023

* b. End Date: 12/31/2025

18. Estimated Funding ($):

* a. Federal	15,000,000.00
* b. Applicant	434,272.00
* c. State	1,600,000.00
* d. Local	0.00
* e. Other	392,222.00
* f. Program Income	0.00
* g. TOTAL	17,426,494.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 18, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Mr.

* First Name: Rick

Middle Name:

* Last Name: Dunne

Suffix:

* Title: Executive Director

* Telephone Number: 203-489-0364

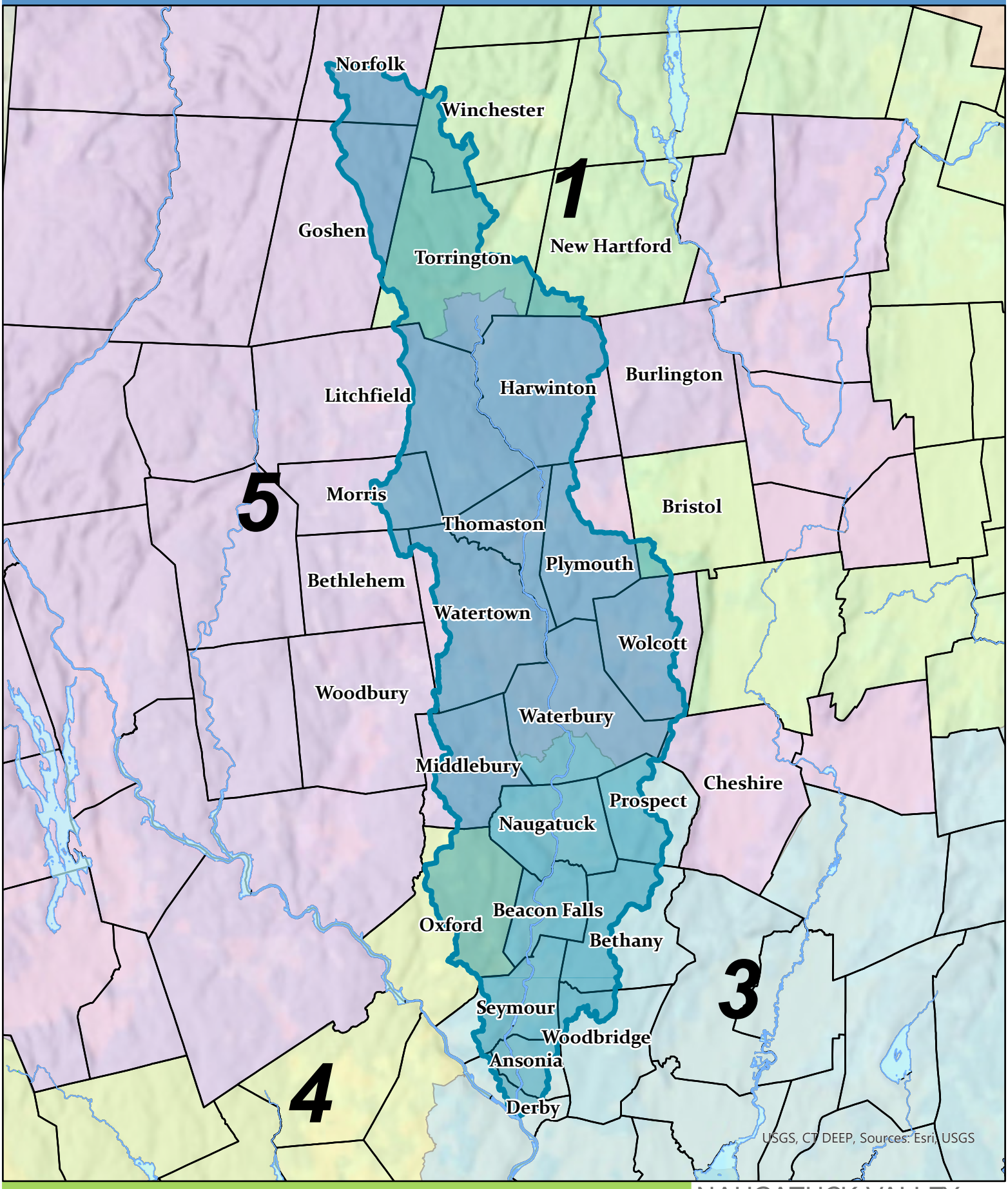
Fax Number:

* Email: rdunne@nvcogct.gov

* Signature of Authorized Representative: Completed by Grants.gov upon submission.

* Date Signed: Completed by Grants.gov upon submission.

U.S. Congressional Districts and the Naugatuck River Watershed



NAUGATUCK VALLEY COUNCIL of GOVERNMENTS

PREVIEW Date: Aug 13, 2022 Workspace ID: WS00954465 Funding Opportunity Number: NOAA-NMFS-HCPO-2022-2007209

Project Narrative File(s)

*** Mandatory Project Narrative File Filename:** NVCOG Kinneytown - Project Narrative - 8.12.22.pdf

Add Mandatory Project Narrative File | Delete Mandatory Project Narrative File | View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File | Delete Optional Project Narrative File | View Optional Project Narrative File

Project Summary

1. Applicant Organization: The Naugatuck Valley Council of Governments (NVCOG)

2. Project Title: It's About Dam Time: Removing Kinneytown Dam to Restore Fish Passage and Advance Environmental Justice

3. Site Location: The project focus is the Kinneytown Dam Facility in Seymour and Ansonia Connecticut, Located in the Naugatuck River Watershed. The approximate geographic location of Kinneytown Dam is 41°22'07.8"N 73°05'06.3"W (41.368833, -73.085083). The geographic location of the associated Canal Reservoir Dam at Unit 2 in Ansonia is 41°21'13.3"N 73°05'07.2"W (41.353693, -73.085342)

4. Brief Project Description: NVCOG, representing the 19 municipal CEOs in the watershed, in partnership with Save the Sound, is proposing a 3-year project to fully remove the highest priority barrier to fish passage in the region, the Kinneytown Dam Facility. The Kinneytown Dam is a FERC-regulated hydroelectric generating facility consisting of two dams and associated structures (collectively "Kinneytown Dam Facility"). One dam is located on the main stem of the Naugatuck River in Seymour, with an associated intake structure and power generating unit (Unit 1), and an ineffective Denil fish ladder. A gatehouse on the east bank leads to a canal that delivers water through an impoundment (Coe Pond) to a second structure and generating unit approximately one mile south in Ansonia (Unit 2), with a second dam (Canal Reservoir Dam). The Kinneytown Dam facility is the only remaining barrier to fish passage on the Naugatuck River below Thomaston, CT. This project will cover stakeholder engagement, property acquisition, FERC decommissioning, data collection, engineering design, construction, site restoration, and implementation monitoring that will result in full removal of this major impediment to fish passage.

Project Goals: The project goal is to remove the Kinneytown Dam facility, restoring effective fish passage to the Naugatuck River. Migratory fish once had free access to the length of the entire Naugatuck River and its tributaries. Blueback herring, alewife and American shad are Managed Species of Concern at both the state and federal level. These fish serve an important ecological role by transporting nutrients upstream to increase ecosystem productivity, and are important as prey for commercial fish species in Long Island Sound and the Atlantic Ocean. Restoring fish passage at Kinneytown Dam will allow diadromous fish to enter through mouth of the Housatonic River and move freely inland up to the mainstem of the Naugatuck River to adult spawning and juvenile rearing habitat. Full access above the dam for target species is 29.2 mainstem rm and this increases to 77.4 rm when tributaries are included for sea lamprey spawning and American eel rearing. This will open spawning and rearing habitat that could support up to 93,118 river herring (65.9% of 141,245 target) and 16,707 American shad (77.8% of 21,479 target). This project will begin the process of rebuilding historic fish populations to protective and sustainable levels in the Naugatuck River, benefiting river ecology, bolstering the marine commercial fisheries, and attracting sport anglers to the region. A direct measurable impact of this project will be the attraction of anglers pursuing shad, increasing the local tourism economy. Removal of the dam will also reduce flood risk to communities up- and downstream and restore natural sediment flows that will help attenuate downstream coastal flooding.

Regional and Watershed Context: The Naugatuck River is the largest tributary to the Housatonic River and the largest internal watershed in Connecticut, encompassing 311mi^2 (Regional Basin 6900 HUC12). Kinneytown Dam is in the lower watershed, just four miles upstream from the confluence with the Housatonic. There are no barriers to fish passage below Kinneytown Dam, and target species find themselves below the dam with no effective means to pass. A Denil fish ladder at the facility has a long record of ineffectiveness and has virtually ceased passing fish since hydroelectric generation ended in 2020. Despite the Connecticut Department of Energy and Environmental Protection (CTDEEP) alewife stocking efforts, and hundreds of millions in public investment removing obstacles upstream and improving water quality and habitat, only an average of a dozen target fish, including both American shad and river herring have ascended the Kinneytown ladder annually over the past two decades. The habitat quality upstream would be supportive of increased diadromous production if large numbers of fish could reach it. Tingue Falls is the next barrier upstream, 1.86 miles north of Kinneytown, and has a nature-based fishway bypass that was reengineered in the spring of 2022 to achieve modern fish passage standards. The small Plume & Atwood Dam in Thomaston is the next barrier to migration 29.2 miles upstream from the Kinneytown. The next and final large barrier to reopening the entire river is a USACE Flood Control Project, Thomaston Dam, located 30.7 miles upstream. The larger watershed strategy to build community and ecological resilience rests on bringing back the river by restoring sea-run fish and public access, engaging underserved communities in restoring a river devastated by its industrial past to a resilient and sustainable future, lifting property values, connecting the public greenway, and providing high quality angling and subsistence fishing for residents and visitors.

Timeline:

	Stakeholder Engagement	Property Acquisition	FERC Decommissioning	Data Collection	Engineering Design	Construction	Site Restoration	Implementation Monitoring
Year 1								
Year 2						Dredging		
Year 3						Dam Removal		

5. Landowner and Stakeholder Outreach: The dam owner, Hydroland, Inc. is in full support of this proposal, and there is an agreement in principle to transfer ownership to the CT Brownfield Land Bank (CTBLB), a non-profit brownfield redevelopment corporation affiliated with the applicant. NVCOG, Save the Sound, and grass-roots partners have been working as the Naugatuck River Restoration Coalition (NRRC) since 2020 to restore fish passage at Kinneytown Dam. As part of that effort, the NRRC has conducted outreach to a diverse range of stakeholders including municipal, state, and federal officials; agency staff; advocacy organizations; and the public through public meetings, presentations, an interactive storymap, websites, press releases, social media, and a petition that received 610 signatures. That outreach has included extensive consultation with permitting agencies including USFWS and CTDEEP. A public presentation is being planned with community organizations in watershed communities in October, and outreach will continue on all fronts discussed above.

6. Funding Request: NOAA Request: $15,000,000, Other: $2,426,494, Total Project: $17,426,492

- Year 1: NOAA Request: $1,847,253, Other: $925,555
- Year 2: NOAA Request: $ 922,156, Other: $658,172
- Year 3: NOAA Request: $12,230,591, Other: $671,710

*See Budget Narrative, Detailed Project Budget Table

Project Narrative

Kinneytown Dam on the Naugatuck River in Seymour, CT looking north with generating unit 1 and fishway to the left.

1. Importance and Applicability

1.a. Priority for Migratory Fish

The Long Island Sound River Restoration Network, a regional group of NGO stream-barrier-removal practitioners, has identified Kinneytown Dam on the Naugatuck River as the leading priority removal ready for action within the Long Island Sound watershed in NY and CT. Dam removal has been identified by CT DEEP as the preferred method of fish passage at Kinneytown in the draft 2022 *Plan to Restore Diadromous Fishes to the Naugatuck River Watershed*. Full dam removal will provide measurable migratory fish population benefits that will contribute to the support, recovery, and sustainability of Naugatuck fish runs by opening a total of 77.4 river miles (rm), creating an additional 151 hectares of fish habitat (Table 1.). The species that will benefit from access to historic habitat include both ASMFC-managed fisheries and NOAA trust species. A total of 29.2 mainstem rm will be opened for blueback herring, American shad, and alewife, with an additional 28.3 tributary rm for American eel and sea lamprey (Table 2). Mainstem miles opened to the next barrier at the Plume & Atwood Dam will be 29.2 rm for a total of 77.4 opened rm; there are no downstream blockages or other seasonal impediments. The CTDEEP production estimates for the mainstem and tributaries once populations are fully restored are: 21,479 for American Shad, 141,245 for river herring, and 6,836 for sea lamprey. Removal of Kinneytown Dam will open spawning and rearing habitat that could support up to 93,118 river herring (65.9% of target) and 16,707 American shad (77.8% of target). When combined with existing spawning below the dam to the confluence with the Housatonic the river will realize 97% of its American shad production potential and 81% of its river herring potential. While not part of this application, CTDEEP

monitoring at Tingue Dam bypass less than 2 miles upstream will provide data on accessible and productive habitat. These quantifiable performance measures have been determined through ground truthing of the watershed and a desktop GIS exercise to determine the rate and diversity of diadromous population recovery.

Passage of fish into habitats where they have been extirpated fortifies ecological and community resilience. Mussels that rely on fish for dispersal will expand their range and provide ecosystem services such as filtration and food web diversity. Sea lampreys will modify gravel, improving salmonid spawning. Animals such as eagles and ospreys that have returned to the Naugatuck will increase their populations based on the new food sources. All these population expansions will increase genetic diversity within each species, inherently increasing their resiliency to warming waters. Fewer impoundments will make the Naugatuck a cooler system and likely provide increased access to spring fed cold water refuges for newly returning populations, thereby decreasing seasonal mortality rates. The ability of anadromous fish to transport marine-derived nutrients inland increases and diversifies primary productivity and insect populations that can benefit all species of fish in the system.

In saltwater, increased migration of juvenile and adult river herring diversifies prey species and seasonal availability. This provides a wider food opportunity for predator species such as cod, striped bass, eagles, seals, and seabirds. The target species spend considerable time in the estuarine environment from head of tide below the Kinneytown to the mouth of the Housatonic. The river mouth is bordered by an Audubon oyster reef and dune restoration project on one side, and on the other, the Charles E. Wheeler State Management Area, a large salt marsh complex dominated by spartina and cordgrass. It is an important foraging area for roseate terns, nesting habitat for piping plover and a nursery for diamondback terrapin.

Stream Name	Watershed Size (sq.miles)	Species[1]	Stream Length Targeted for Restoration
Downstream of Thomaston Dam			
Naugatuck River*	45.1	AS, ALE, BBH, SL, AE,	~30.7 miles to the base of the Thomaston Dam
Little River	15.5	AE, SL	~5.7 miles; diminishing size
Bladens River	10.7	AE, SL	~3.6 miles to Sanford Road; diminishing size.
Hockanum Brook	4.8	AE, SL	~1.2 miles to Skokarat Street; diminishing size
Beacon Hill Brook	10.2	AE, SL	~2.6 miles to Bowman Drive; diminishing size
Long Meadow Pond Brook	8.5	AE, SL	~4.7 miles to Long Meadow Pond Dam
Hop Brook	17.4	AE, SL	~1.3 miles to Hop Brook Lake Dam
Fulling Mill Brook	5.4	AE, SL	~3.6 miles to Salem Road; diminishing size
Mad River	20.3	ALE	~6.9 into Scoville Reservoir
		AE	~12.3 miles into Cedar Lake
		SL	~11.4 miles to Cedar Lake Dam
Steele Brook	17	AE, SL	~5.3 miles to Route 6; attrition by barriers and diminishing size
Hancock Brook	15.4	AE, SL	~2.9 miles to Greystone Pond Dam
Branch Brook	22.5	AE, SL	~2.0 miles to Black Rock Flood Control Dam
Upstream of Thomaston Dam			
Naugatuck River	45.1	AS, ALE, BBH, AE, SL	~9.3 to the confluence of the East and West branches
Leadmine Brook	9.5	AE, SL	~7.0 miles to the confluence of the East and West branches
East Branch Naugatuck River	14.1	AE, SL	~3.1 miles to the base of the Est Branch Naugatuck River Reservoir Dam
West Branch Naugatuck River	34.0	ALE, AE, SL	~3.5 miles into Stillwater Pond

[1]Species codes: AS= American shad, AE= alewife, BBH= blueback herring, SL= sea lamprey, AE= American eel.

Table 1: Summary of streams in the Naugatuck River Basin and the stream sections and species targeted for restoration. From the draft 2022 CT DEEP Plan to Restore Diadromous Fishes to the Naugatuck River Watershed.

Removing barriers on river systems improves both habitat quality and quantity and aligns with multiple fishery management and recovery planning efforts. "Those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" are considered as NMFS Essential Fish Habitat (EFH) as defined in the Magnuson Stevenson Act. Furthermore, the Atlantic States Marine Fisheries Commission has initiated the first regional Ecosystem-Based Fishery Management Plan (EBFM) with Ecological Reference Points (ERPs). The New England

Management Council is also considering EBFM and some options include Atlantic herring ERPs. River herring are known to school with Atlantic herring, so river herring bycatch is a concern in the Atlantic herring fishery. Increasing river herring populations will enhance flexibility for fisheries managers. In addition, the Long Island Sound Study Comprehensive Conservation and Management Plan lists opened river miles as a congressionally reported metric.

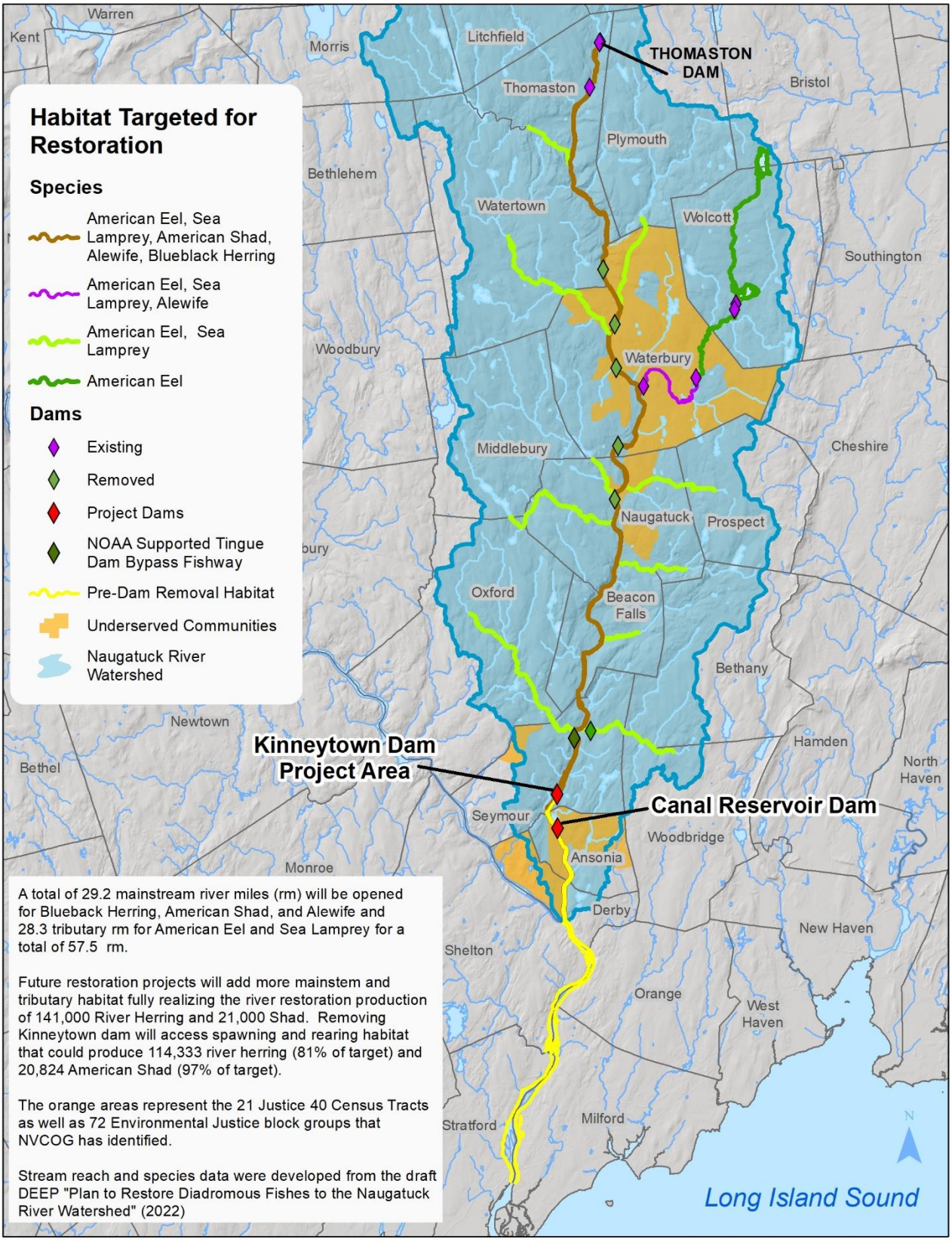
River Reach[1]	Total Hectares	Shad (N)	River Herring (N)[2]
Naugatuck River			
Housatonic River to Kinneytown Dam	37	4,107	21,460
Kinneytown to Tingue	22	2,442	12,760
Tingue to Union City	48	5,284	27,608
Union City to Platts Mill	14	1,499	7,830
Platts Mill to Freight St	18	*1,987*	*10,382*
Freight St to Anaconda	6	*710*	*3,712*
Anaconda to Chase Brass	8	899	4,698
Chase Brass to Plume-Attwood	35	3,896	20,358
Plume-Attwood to Thomaston	6	655	3,422
Mad River	40		23,490
Grand Total	234	21,479	*141,245*

Table 2: Production estimates for American shad and river herring for restored populations in the Naugatuck River Basin. From the draft 2022 CT DEEP Plan to Restore Diadromous Fishes to the Naugatuck River Watershed.

1.b. Regional and Watershed Context

The Naugatuck River is the largest tributary to the Housatonic River and the largest internal watershed in Connecticut, encompassing 311 square miles (Regional Basin 6900 HUC12). Kinneytown Dam is in the lower watershed, just four miles upstream from the Naugatuck's confluence with the Housatonic River. Before European settlement, migratory fish had free passage from Long Island Sound through the Housatonic River to miles of habitat in the Naugatuck and its tributaries. The river and its tributaries drove the economy of the Naugatuck Valley for centuries and made the valley an industrial powerhouse - but industry also had a devastating effect on the river. Dams blocked fish passage, and sewage and industrial waste severely degraded water quality. The river became known for its odor and for changing colors depending on what dyes and wastes were being discharged upstream at the time; it ceased to support aquatic life. It even caught fire in 1943.

Over the past several decades, thanks to the regulation of industrial discharges and hundreds of millions of dollars in public investments to wastewater treatment plants, the Naugatuck River has made a remarkable comeback. As part of a larger watershed strategy initiated by CTDEEP, and assisted by members of this project partnership, five mainstem dams and three tributary dams have been removed upstream of Kinneytown since 1999. In 2014, a NOAA-supported nature-based fishway was opened at Tingue Dam. With a Denil fish ladder installed at Kinneytown in 1999, fish passage from Long Island Sound to Plume and Atwood Dam in Thomaston should have been secured. That ladder, however, was never effective and virtually ceased any passage at all with the decline and closure of hydroelectric production at the dam (≈12 target fish annually over 20 years). Target species, including American shad, alewife, and blueback herring, as well as sea lamprey and American eel, have been identified below and approaching the dam through video, photo, and/or eDNA documentation -but these fish currently have no effective way to access the miles of quality habitat upstream.



This application represents the direct support of the 19 municipal chief elected officials that comprise the NVCOG Board. They have made restoration of fish passage at Kinneytown Dam a high regional priority; dedicating professional staff and significant local funds to gain control of the dam. They understand that a fully restored river, including the restoration of migratory fish populations, will support the regional economy, improve health and quality of life of residents, improve resilience, and help drive the region's economy into the future. The municipalities and NVCOG have invested heavily in improving water quality and creating opportunities for people to enjoy the river, including a coordinated effort to develop the Naugatuck River Greenway Trail and vegetative buffer plantings. The ultimate success of those and future efforts will rely on continued improvement of the river's health, including the return of migratory fish. Removing Kinneytown Dam will build community and ecological resilience by restoring natural nutrient and sediment flows throughout the watershed and reducing the risk of flooding both up and downstream of the dam.

1.c. Enhancing Community Resilience to Climate Hazards and Providing Other Co-Benefits

Removing Kinneytown Dam will enhance community resilience to climate change by reducing flood risk to communities both up- and down-stream of the project site on the flood-prone Naugatuck River. Upstream, preliminary modeling indicates that dam removal will reduce the area of 100- and 500-year floodplains to the bounds of the former impoundment. Four stretches of Route 8 (a critical transportation route) may be taken out of the 500-year flood plain, and 25 homes and a cemetery could benefit by removal from floodplains or reduction of flood levels, enhancing the ability to plan and prepare for adverse effects of extreme weather events. Kinneytown Dam is listed as a "Significant Hazard" Dam, and its removal will dramatically reduce flood risk downstream by eliminating the risk of dam failure. The FEMA-approved 2021 NVCOG Multi-jurisdictional Hazard Mitigation Plan identified the poor condition of Kinneytown Dam as a concern and identified dam removal as a permanent solution to eliminate flood risk downstream from a dam failure. Dam removal will also restore natural sediment transport in the Naugatuck River, helping to replenish coastal marshes, enhancing estuarine habitat value, and improving coastal flood attenuation.

Co-benefits to the community from this project will include improved opportunities for recreational boating and for subsistence and sport fishing opportunities that contribute to quality of life and economic vitality for resident populations near the site. According to the American Sportfishing Association, anglers spend $381 million annually while fishing in Connecticut. Improvements in water quality over the last several decades have made recreational fishing possible along the Naugatuck River, but Kinneytown Dam is hindering regional participation in the outdoor recreation economy by preventing popular sport fish from accessing substantial habitat upstream. Removal will result in full restoration of habitat connectivity and creation of related economic and recreational opportunities for local communities.

Other community co-benefits will include the development of public river access and a section of Naugatuck River Greenway (NRG) Trail on the property. A 2017 study conducted by NVCOG investigating the economic impacts of the development of the NRG Trail found that the planned trail sections in Ansonia and Seymour (portions of which would be developed under this project) would attract 671,900 annual visits driving $10.2 million in annual direct economic benefit and $62 million in cumulative monetized health impacts by 2031.

Additional Co-Benefits:

- Removal of blight and safety hazards from a property in an underserved community.
- Removal of the risk of an uncontrolled sediment release.

- Reduction of the risk of sewage release (3 sanitary siphon removal/replacements under river)
- Water quality enhancement through removal of the shallow impoundment behind Kinneytown Dam that is diminishing water quality and increasing water temperature.
- Increased food sources for birds of prey, notably Osprey and Bald Eagles that nest in the area.
- Potential development of an alternative renewable energy source to replace the defunct hydroelectric capacity of the dam that will help reach regional and state carbon reduction goals, reduce future climate change impacts and build grid resilience against extreme weather.

1.d. Providing Benefit to Underserved Communities

Pursuant to President Biden's executive order, for the purpose of this application, NVCOG is defining underserved communities as the 21 Justice 40 Census Tracts along the Naugatuck River or tributaries below Thomaston Dam. NVCOG has also identified 72 Environmental Justice block groups in our region that are within the Naugatuck River watershed, and which exceed the regional threshold for both low-income and minority populations. Justice 40 Census Tracts were identified using the Climate and Economic Justice Screening Tool (CEJST). Environmental Justice census tracts were identified during the 2022 update to NVCOG's Title VI Plan.

Benefits will flow in several ways to underserved communities. Most directly, the combination of the decommissioning and removal of the Canal Reservoir Dam and Unit 2 facility in an underserved community in Ansonia (Justice 40 census tract FIPS #09009125400) will replace a serious public safety hazard and blighted property with an attractive recreational amenity that includes river access and a greenway trail adjacent to a residential area. There are clear signs of trespassing and ongoing illicit access to the facility, which includes a canal with standing, stagnant water and open buildings with numerous hazards. Neighbors complain about accumulated trash, smell, and mosquitoes in the summer, and general blight conditions that directly impact the quality of life and property values in the neighborhood. We will remove the facility, fill the canal and Coe Pond with sediment from behind Kinneytown Dam, and cap the site to create a recreational amenity and access to the river that will improve quality of life, property values, and health outcomes in this community.

Upstream, residents of several Justice 40 tracts in Waterbury along the Naugatuck River and tributaries will directly benefit from improved recreational and subsistence fishing and spending by new anglers

Left: Canal Reservoir Dam and Unit 2 in Ansonia, note proximity of residential neighborhood. Above: Trash in the canal and abandoned Unit 2 powerhouse facility. Photo taken from adjoining underserved neighborhood.

attracted by expanded species diversity and fish populations will help support local economies of all upstream communities. Downstream, Justice 40 tracts in Ansonia and Derby will reap additional resilience benefits from this project through the removal of a potential dam breach flood hazard.

These benefits will be measured through tracking of recreational uses to new river access points and on the NRG Greenway Trail with automated count technology and through user surveys. Longitudinal study of neighborhood property values will also be conducted, and hazard reduction will be documented.

2. Technical and Scientific Merit

2.a. Project Site Characteristics and Methods

With funding from NOAA, we will remove the Kinneytown Dam in Seymour on the mainstem of the Naugatuck River and the associated Canal Reservoir Dam in Ansonia at Unit 2. Dam removal will enable uninhibited fish passage. This effort will include the following phases: stakeholder engagement, property acquisition, FERC decommissioning, data collection, engineering design, construction, site restoration, and implementation monitoring. The entire process will be enhanced by outreach, education, and input, with a focus on underserved communities. For a full breakdown of tasks under each phase, see the "Kinneytown Dam Removal Project Timeline" in the Project Design section.

The Kinneytown Dam was constructed in 1845 as a diversion dam for a downstream mill and later converted into a hydroelectric dam with a canal that leads to an additional offline dam downstream. Floods have twice destroyed the dam, once in 1910 and again in 1955, and it was twice rebuilt. It is currently in need of repair according to a FERC communication from 2022 and rated as a significant hazard by CT DEEP since 2016, with an inoperable fish ladder. The dams have not been used to generate electricity or for any purpose since fall of 2020. The Kinneytown Dam is 28 feet high and 455 feet wide, with an estimated impoundment area of 72 acres and volume of 180 acre-feet. The Canal Reservoir Dam, which is also in need of repair, is 30 feet high and 60 feet wide, with an estimated impoundment area of 37 acres and volume of 185 acre-feet.

The Naugatuck River had a rich history of prolific migratory fish runs that were a critical resource for Native American tribes and European settlers. In an effort to restore these historic runs, the Denil fish passage facility at the Kinneytown Dam was constructed in 1999. In 2020, the Naugatuck River Restoration Coalition analyzed 14 years of daily fish passage data and determined that the average annual fish passage from 2000 to 2020 for American shad, blueback herring, and alewife combined was a mere 12.5 individual fish per year from April 1 to July 1. In the 2021 migratory season, with no power generation resulting in near constant spill, the fish ladder only passed 3 alewife, 4 American eel and 18 sea lamprey. Post-barrier removal, anticipated fish passage numbers at the site are 141,000 river herring and 21,000 American Shad.

We estimate 750,000 cubic yards (cy) of impounded sediment behind the dam, of which we expect 531,000 cy to be mobilized post-dam removal. The sediment is largely coarse sand and gravel. We anticipate some contamination based on testing that has been done on dams upstream; expected contaminants include benzo analytes, lead, and/or copper. As part of this project, we plan to characterize the sediments behind the Kinneytown Dam. The preferred sediment management method for dam removal still needs to be agreed upon by the regulatory agencies. Based on sediment analyses of prior upstream dam removals, we anticipate that the sediment can be managed by hydraulically dredging the upper layers of the sediment, where the majority of exceedances of state Remedial Standard Regulations are likely to be found, while allowing a portion of the sediment to be passively transported downstream to enrich the riverine wetlands and estuary downstream. The hydraulically

dredged spoils would be sluiced down the existing canal that parallels the river's eastern riverbank into Coe Pond, where it will be stabilized, capped, and used to create open space along the restoration of the only natural watercourse and with access to a public greenway.

Extensive archeological and historic analysis of dams removed upstream will help inform our understanding of historic and cultural resources in the area. The proximity of the railroad and highway on either side of the river reduces the likelihood of undisturbed soil containing archaeological resources. No aquatic invasive species have been identified in the project area, but ongoing close consultation with CTDEEP and USFWS has us well-positioned to engage in control strategies if necessary.

Our team, in collaboration with CTDEEP and USFWS, has spent the past two years discussing fish passage alternatives and approaches for the Kinneytown Dam site, and now, in full collaboration with the dam owners and formerly prospective buyers, has reached common agreement on removing the Dam to maximize the benefits to the river and surrounding communities. Removal of Kinneytown Dam is also the preferred alternative in the CT DEEP Plan to Restore Diadromous Fishes to the Naugatuck River Watershed 2022, which is currently undergoing its public comment process.

2.b. Project Description and Milestones

If full project funding is secured, and our proposed sediment management approach is approved by the regulators in a timely manner, NVCOG and Save the Sound are confident that we can achieve all milestones within the three-year award period. regulatory delays beyond our control during this schedule may result in the need to request up to two, one-year no cost extensions, and the applicant will be fully prepared to do so if necessary.

We consider **Year 1** of the NOAA Grant to be the calendar year (CY) 2023, assuming a likely award start date of late 2022. Our **milestones for the first year** include transition of dam ownership, commencement of FERC decommissioning process, completion of sediment analysis, development of a sediment management plan, engineering for the dam removals and relocation of two sewer siphons, launch of stakeholder outreach and education, commencement of permitting, and establishment of a Monitoring and Data Sharing Plan based on NOAA's Tier 1 criteria. No permits have been applied for yet, but we anticipate that we will need the following: CT Dam Safety Permit, U.S. Army Corps of Engineers Permit, CTDEEP Flood Management Certificate, General Permit for Stockpiling, Sec. 401 Water Quality Certificate, and Sec. 106 Consultation. The project team will collaborate closely with regional NOAA staff to provide the requisite information necessary for completing the NOAA Inclusion documentation in addressing the anticipated effects on the environment, per the National Environmental Policy Act (NEPA). While our first-year plan may seem aggressive for a project of this size, we are confident given the extensive amount of existing information for the Naugatuck River and Kinneytown Dam site, due to the two decades of watershed-wide restoration efforts by our team. **Year 1 funding increment: $1,847,253**

Year 2 (CY 2024) **milestones will include** continuation of outreach and education (including public workshops, river cleanups, and updates to web-based storymap); a 6-month regulatory review period, including cooperative dialogues, completion of a second round of pre-removal monitoring; completion of engineering plans for dam removal as per regulatory review; completion of FERC decommissioning process; implementation of the sediment management plan; and the commencement of the bidding process to select a contractor for construction. **Year 2 funding increment: $922,156**

Major milestones Year 3 (CY 2025), will be to start and complete construction, which will mean focusing on the continuation and completion of sediment management implementation and sewer relocations first, such that the dam removal can be initiated and completed during the low flow period of June through October 2025. Monitoring, stakeholder engagement, outreach, and education efforts will continue throughout this year, culminating in a celebration event. **Year 3 funding increment:$12,230,591**

The plan as outlined above provides for the execution of acquisition, FERC decommissioning, stakeholder input, design, permitting, construction, and implementation monitoring within the three-year award period. Further details are featured in a Gantt chart with interim milestones, in the Project Design section.

2.c. Fish Passage Implementation Monitoring and Evaluation

NVCOG and Save the Sound will work closely with staff from NOAA (including Jim Turek), USFWS (including Rick Jacobsen), and CTDEEP (including Tim Wildman) to develop an Implementation Monitoring Plan (IMP) that will follow restoration monitoring and assessment protocols per NOAA's Tier 1 Guidance.

Since the primary project goal is restoration of diadromous fish passage on the Naugatuck River and tributaries, it is critical that our IMP and corresponding monitoring efforts align with the standards, targets, and recommendations included in the final version of CTDEEP's 2022 *Plan to Restore Diadromous Fishes to the Naugatuck River Watershed* (currently in draft form) and that monitoring at this project site is conducted in coordination with monitoring efforts upstream at the Tingue Bypass Channel (recently completed using NOAA funding at the next upstream barrier).

Save the Sound staff will draft the IMP to measure near-term implementation success using metrics and methods appropriate to assess short-term structural changes to the project site and river channel, costs and benefits to the surrounding community, and near-term changes to the ecological community. Specifically, the IMP will direct the project team as to the frequency, duration, and methods for gathering pre-and-post implementation data related to site pass-ability, presence of target fish species, changes in annual operating and maintenance costs, reduction of public safety hazards, and community enhancement benefits associated with implementation.

Pre-implementation data collection will include the continuation of target species presence/absence assessment through eDNA sampling and the continued monitoring of CTDEEP's electronic fish counter on the existing fishway at Kinneytown Dam. Additional presence/absence monitoring will be evaluated upstream of the project site within one year after project implementation, and as-built surveys will also be completed during that period.

2.d. Socioeconomic Performance Measures

NVCOG will review various socioeconomic performance metrics to capture community resilience and co-benefits. Improving equity in access to public resources, including both the River and the Naugatuck River Greenway (NRG), is a cornerstone of this project. Therefore, we will conduct trail use counts at locations along open sections of NRG multi-use trail to assess the popularity and use patterns in and near the project area. Additionally, we plan to report job creation data as a metric through the NAICS system. A similar methodology was used to collect data in the NRG Economic Impact Study, which projects that by between now and 2031 when the trail is assumed to be fully operational, total cumulative economic benefits, in terms of user spending, consumer surplus, and monetized health

benefits, to be over $7.3 billion (mostly due to health benefits). NVCOG and STS will conduct traditional surveying to determine the community enhancement value individuals place on the restored resource and elimination of blight conditions. We will track the increase in the acres of green space, mileage of greenway, and reduced exposure to environmental and safety risks, such as conducting a GIS analysis to determine the number of homes or structures benefiting from reduced flood risk. Another metric we plan to capture is the change in property values of surrounding real estate once blight has been removed and attractive natural open space has been restored.

Given that several underserved communities along the Naugatuck River fall within Justice40 census tracts, we will use our Community Liaisons from these areas to determine additional metrics as necessary. We anticipate all safety and recreational benefits to impact every community along the river, including the 21 Justice40 tracts, and indirectly benefit adjacent communities. We also expect to see immediate ecological benefits, increased public safety, and enhanced water quality. Recreational benefits attributed to the NRG will occur as we see the completion of more trail sections.

2.e. Sustainability

The removal of Kinneytown Dam is the most sustainable way to address fish passage at the site and ensure ongoing restoration benefits. By removing the dam and associated structures and restoring the river to a free-flowing state with natural unfettered fish passage, future management needs will be minimized. All restoration work will be done with habitat improvement and native species benefit as the primary goals. Revegetating formerly submerged land or areas disturbed by construction with appropriate native pollinator-friendly plants will increase biodiversity while minimizing maintenance needs. Recreational river access points and the greenway trail will be designed and constructed to minimize upkeep needs while providing safe access to residents and visitors. Permanent, tamper-and-graffiti-resistant signage will be installed on site to provide ongoing educational benefits to visitors and greenway users.

This project will build resilience against extreme weather and help communities adapt to climate change by reducing flood risk. Dam removal will reduce the level of the 100- and 500-year flood plains upstream of Kinneytown Dam, giving the Naugatuck River more access to floodplains, wetlands, side channels and marshes which will help attenuate flood risks to communities while helping enhance fish and wildlife habitat. Dam removal will also restore natural sediment transport in the Naugatuck River, nourishing coastal marshes and providing additional protection from coastal flooding downstream.

The current dam owner, Hydroland, Inc. is in full support of this proposal, and there is an agreement in principle (see owner authorization in Supplemental Materials) to transfer ownership to the CT Brownfield Land Bank (CTBLB), a non-profit brownfield redevelopment corporation affiliated with the applicant NVCOG. Once transferred, the CTBLB will hold the site during the entirety of the project period—as the site is assessed, the project is engineered and designed, construction is completed, and the property is restored to a natural state. Beyond the project period, any remaining accessible property along the Naugatuck River created through dam removal will be transferred to the municipalities of Seymour and Ansonia for public use with a conservation easement in place to prevent development and ensure unfettered fish passage into the future. The municipalities will manage the property as they do other recreational and open space in order to protect and maintain restoration benefits, with ongoing monitoring and assistance by project partners.

The property surrounding the Unit 2 impoundment (Coe Pond) is expected to be used as the permanently-capped repository for sediments from the primary impoundment. It will be the focus of an

alternative energy study as part of a complementary project that will investigate how the existing electric grid interconnect at the site might be used to replace the defunct renewable energy production capacity resulting from the elimination of the hydroelectric facility (or, really, from its failure in 2020). This would help reach regional and state carbon reduction goals and help reduce future climate change impacts. A local renewable energy source can also build grid resilience against extreme weather and help the community adapt to climate change. If renewable energy development is possible, any development on reclaimed land at Coe Pond would be done with the goal of also enhancing habitat for native species and best practices for stormwater management. How that site will be managed is a question that will be answered by the alternative energy study, which in turn will be informed by extensive public and stakeholder engagement.

2.f. Data Management Plan

The Data Management Plan for this project has been included in "Supplemental Materials."

3. Overall Qualifications of Applicants

3.a. Fish Passage and Conservation Background

As project partner and sub-awardee, Save the Sound brings a dedicated and diverse team of 39, including a 9-person Ecological Restoration team that is a regional leader in fish passage project planning, design, construction, and monitoring. Since 2005, its team has completed more than 55 ecological restoration projects in Connecticut and New York, each incorporating meaningful collaboration with a range of stakeholders, including with federal and state agencies, municipalities, other nonprofit groups, and local volunteers and residents. Its regional impact includes 107 river miles and 525 acres of lake habitat restored for fish passage through the removal of dams and installation of fishways, and the creation and leadership of the Long Island Sound River Restoration Network. It has facilitated four watershed management plans spanning a total of 117 square miles of watershed area, , and incorporates robust and thoughtful community engagement in every project.

Save the Sound's engineers and scientists are skilled in identifying and scoping out dam removal projects; working with dam and land owners; developing key federal, state, municipal, and NGO partnerships; leading outreach and education for surrounding communities and stakeholders; developing design concepts; collecting field data; hiring and overseeing engineering and environmental consulting firms; implementing construction permitting and observation; conducting long term monitoring; and administering complex multimillion dollar state and federal grants (including from NOAA). The following key staff from Save the Sound will move this project through completion, with support from other restoration, admin, communications, and water quality team members:

Regional Director of Ecological Restoration Laura Wildman has worked since 1989 as a professional water resource/fisheries engineer. She has been involved in hundreds of ecological restoration projects throughout the US, working on all aspects of the projects from inception and management through design, permitting, and construction. Laura teaches and speaks globally about the many engineering, ecological, and socioeconomic issues surrounding the removal of dams to restore aquatic connectivity. Laura has an undergraduate degree in Civil Engineering from the University of Vermont and a Master of Environmental Management from Yale. She has received a Leadership in Restoration award from NOAA's Restoration Center, a Coastal America Spirit Award, and the Chief Polin Award for her efforts to restore rivers across the nation and restore historic fish runs.

Long Island Soundkeeper Bill Lucey is a fisheries biologist by training and currently advocates for water and fisheries policy at the state and federal levels. Prior to joining Save the Sound, Bill worked for 20

years in Alaska, most recently as the NOAA-funded CZMP coastal coordinator for the City and Borough of Yakutat, where his projects included road decommissioning, channel reconstruction, fish passage installation, and mapping of fish species on streams and nearshore fish habitat. He also has experience with advanced fish monitoring techniques including telemetry and coded wire tagging.

Fish Biologist Jon C. Vander Werff specializes in designing and conducting pre-and-post implementation ecological monitoring at dam removal sites. At Save the Sound, he supports the implementation of a wide variety of ecological restoration construction projects throughout the Long Island Sound watershed. Jon holds a bachelor's degree in Wildlife Management with a concentration in fisheries from SUNY Cobleskill, and a master's degree in Watershed Management from URI, where his thesis explored how altered temperature regimes influenced by historic mill dams impacted brook trout.

Attorney Ron Kreisman will be an outside advisor on this project, and has been intimately involved as legal counsel to NGOs on three major FERC-regulated dam decommissioning processes in Maine (all successful), the Kennebec, the Penobscot, and the Presumpscot, involving a total of six dams.

3.b. Management Capacity

The Naugatuck Valley Council of Governments (NVCOG) will serve as the Grant and Program Administrator, overseeing grants management, procurement, compliance, and reporting. NVCOG has a staff of 21, including administrative staff, accountants, engineers, planning, and GIS professionals. As the federally-designated Metropolitan Planning Organization (MPO) for the Naugatuck Valley & Bridgeport regions, NVCOG is responsible for planning and monitoring over $1 billion of USDOT Funds annually. NVCOG has long and detailed experience directly managing millions of dollars in state and federal funds for programs and civil projects funded by the FHWA, FTA, EPA, EDA, FEMA, and the State of CT. The applicant's in-house team manages all aspects of federal requirements including procurement, compliance, MBE/WBE/DBE, and reporting requirements. The NVCOG-affiliated nonprofit, the Connecticut Brownfields Land Bank (CTBLB), and NVCOG's Brownfields program both have extensive experience mitigating liability and remediating contaminated properties, returning them to beneficial reuse. The CTBLB, staffed by NVCOG, is authorized by the state of CT to hold severely impacted and/or abandoned industrial development sites through final restoration.

NVCOG Executive Director & CTBLB President Rick Dunne has over 30 years' experience directing planning, design, and development projects at the municipal, state and federal level, with 25 years managing federal funds as a direct recipient. Aaron Budris, M.S., is a 10-year veteran of the agency, and will serve as Project Manager for this project. As a Senior Regional Planner and head of the Environmental Planning Team at the agency, he has successfully managed or overseen large planning and design projects funded by FEMA, EPA, USDOT, CTDEEP, CTOPM, and other sources. NVCOG Finance Director Michael Szpryngel oversees all financial grants management systems and has deep accounting experience utilizing OMB Uniform Guidance (formerly OMB A-087) and federal single audit standards as a recipient of FHWA, FTA, EPA, EDA, FEMA, and DOI funds. NVCOG has retained as Special Counsel Attorney Ron Shems, a partner in the Montpelier, VT law firm Tarrant, Gillies & Shems. Ron's practice area is environmental and energy law, and he routinely manages complex regulatory proceedings including permitting. He has significant experience in proceedings before and on appeal from FERC and other agencies. NVCOG and CTBLB retain the CT-based law firm of Pullman & Comley as General Counsel. They are also engaged for environmental and energy matters. P&C Partner Attorney Gary O'Connor focuses on environmental, real estate and development matters. He has worked with state environmental regulators, EPA, U.S. Army Corps of Engineers and local agencies on behalf of private and

public sector clients to remediate brownfield sites. P&C Partner Attorney Lee Hoffman's work includes environmental law and renewable energy siting, interconnection, and permit proceedings.

4. Project costs

4.a. Budget Detail

		Source / Type of Funds			Federal Request			Federal Matching			Non-Federal Matching		
Object Class	Budget	Federal Request	Federal Matching	Non-Federal Matching	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3	Year 1	Year 2	Year 3
Personnel	264,796	-	-	264,796	-	-	-	-	-	-	105,822	76,358	82,617
Fringe Benefits	164,476	-	-	164,476	-	-	-	-	-	-	63,568	46,814	54,093
Travel	5,000	-	-	5,000	-	-	-	-	-	-	1,667	1,667	1,667
Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-
Contractual	14,366,797	12,374,575	392,222	1,600,000	537,000	418,000	11,419,575	392,222	-	-	533,333	533,333	533,333
Construction	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	2,625,425	2,625,425	-	-	1,310,253	504,156	811,016	-	-	-	-	-	-
Total Direct Charges	**17,426,494**	**15,000,000**	**392,222**	**2,034,272**	**1,847,253**	**922,156**	**12,230,591**	**392,222**	**-**	**-**	**704,390**	**658,172**	**671,710**
Indirect Charges	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**17,426,494**	**15,000,000**	**392,222**	**2,034,272**	**1,847,253**	**922,156**	**12,230,591**	**392,222**	**-**	**-**	**704,390**	**658,172**	**671,710**

4.b. Cost-sharing and Leveraging Funds

Project Match Table

Organization Name	Amount	Federal Request	Federal Match	Non-Federal Match		Leverage Contribution	Status
				In-Kind	Cash		
NOAA	15,000,000	15,000,000	-	-	-	-	Pending
US EPA (Soil & Sediment Assessment)	392,222	-	392,222	-	-	-	Pending
CT DEEP	1,782,399	-	-	-	1,600,000	182,399	Confirmed
Naugatuck Valley Council of Governments	434,272	-	-	434,272	-	-	Confirmed
CT Brownfield Land Bank	2,291,934	-	-	-	-	2,291,934	Confirmed
Total	**19,900,827**	**15,000,000**	**392,222**	**434,272**	**1,600,000**	**2,474,333**	

*See Budget Narrative, Detailed Project Budget Table

4.c. Funding Allocation and Cost-Effectiveness

100% of the $15,000,000 project funding requested from NOAA through this application will be applied directly to stakeholder engagement, property acquisition, FERC decommissioning, data collection, engineering design, construction, site restoration, and implementation monitoring that will result in full removal of the highest priority barrier to fish passage in the region. The approach proposed in this application reflects best practices for all of these project components, and represents a cost-effective opportunity to unlock the full benefit of more than $300 million in upstream water quality and fish passage improvements, while also facilitating the accrual of new and lasting benefits to adjacent, up-and-down stream underserved communities.

Due to the history and nature of this river system, sediment management is both the most expensive and time-consuming part of any dam removal on the Naugatuck River. This project has strong support from the EPA and other funding agencies, and NVCOG is confident in our ability to secure the necessary funding (separate from funding requested from NOAA in this application) for sediment management at the Kinneytown Dam facility. If there are significant delays in regulatory approval or funding award and receipt for sediment management at the site, it is possible that we will need to request one or more years of no-cost extension. If approved by regulatory agencies, our proposed approach to sediment management would be a cost-effective solution that would generate lasting benefits to the adjacent underserved communities in the form of an open space and greenway where a public health and safety hazard now exists.

Our uniquely qualified project team, and the broad support from local residents, municipalities, regulatory agencies, and State and Federal Delegations garnered over the past two years, give us confidence in our ability to complete this monumental project within the budget and timeline we are

proposing. The removal of the Kinneytown Dam facility (including two dams and associated structures) is a relatively complex dam removal due to decades of pollution, the proximity of critical transportation and sewer infrastructure, the flood-prone nature of the Naugatuck River, and the fact that this is a non-functioning hydroelectric dam facility with a large volume of impounded sediment—but those same factors make this a uniquely impactful project of profound regional significance.

5. Outreach and Education

5.a. Stakeholder Support

The Naugatuck River Restoration Coalition (NRRC) formed in 2020, formalizing grassroots advocacy to restore fish passage at Kinneytown Dam that began nearly two decades earlier. The core of the coalition consists of the NVCOG, Save the Sound, and the Naugatuck River Revival Group. The Housatonic Valley Association and Rivers Alliance have also signed on in support of the effort. The NRRC has worked to inform the FERC and regulatory resource agencies (USFWS and CTDEEP) about the ongoing issues of fish passage at Kinneytown Dam, and it has sought fish passage restoration through an open FERC Docket relating to the facility's non-compliance with its license exemption. That effort has gained support from a diverse range of stakeholders, as well as state-wide media attention, and has been strongly supported by US Senators Blumenthal and Murphy, and US Representatives DeLauro, Hayes and Himes. The effort has also garnered broad public support, with a petition circulated in support of the effort receiving 610 signatures.

That effort over the past several years has led to the regulatory agencies, USFWS and CTDEEP, recently filing letters with FERC calling for the revocation of the Kinneytown Project's FERC license exemption to make way for other parties interested in restoring fish passage. The facility owner, Hydroland, has entered negotiations with the NRRC regarding the transfer of ownership of the facility, and fully supports NVCOG's application for funding from NOAA that will allow the agency and partners to take all necessary steps to remove the dam and restore fish passage.

As evidenced by the letters provided herein, both this project and this grant application are supported by a diverse range of stakeholders, including those demonstrating commitment to cost-sharing among stakeholders to reduce individual liability including from federal and state regulatory agencies, federal and state representatives, leading NGOs involved in dam removal and conservation, and others.

5.b. Inclusive Planning and Engagement

The process of engaging the public with our work will be thoroughly inclusive, embedding members of neighboring low-income, BIPOC communities directly impacted by the river's health into the project from the beginning. We are aware of and plan to address potential barriers to the meaningful engagement of underserved communities, including language, childcare, availability/schedule, ADA accessibility, and more. Within the first year, Save the Sound will contract with three local residents from underserved communities to serve as paid Community Liaisons. Educational workshops and training on the importance of barrier removal and fish passage, as well as the specific project context, will be provided for Community Liaisons ahead of public presentations and sessions. These individuals will work with the project team to invite broad and inclusive community engagement and input during webinars, stewardship programs, cleanup events, and public workshops and meetings held at various points over the course of the project, and will have direct input into the format and delivery of public sessions. Community Liaisons will be compensated for their time and expertise in helping to ensure the meaningful engagement of underserved communities and to broaden public awareness of the project throughout planning and decommissioning, design, and removal.

Since a recent analysis of American Community Survey 2016-2020 five-year estimates data indicated a sizeable existing Spanish speaking population in the identified Environmental Justice Communities located in Waterbury, Ansonia, and Derby, materials produced for the sake of outreach and education about barrier removal and fish passage will be produced in both English and Spanish. NVCOG has staff translation capacity. In order to address other barriers to meaningful, inclusive engagement, we will take measures to ensure in-person events are held in ADA-accessible locations on easy-to-access transportation routes with translation and childcare services available as needed to address the specific needs of attendees. When possible, we will also provide multiple time frames for these engagement opportunities to increase accessibility.

We will host many opportunities for the larger community to stay informed and provide feedback through charrettes. The aim of these charrettes will be to discuss how to incorporate and best meet the holistic needs of the community related to this project and the project site, which may include increasing river access points, creating parks, and introducing accessible recreational opportunities. Decisions will be guided by community input to encourage meaningful involvement. Throughout this process of inclusive engagement, we will measure the benefits of the project through feedback surveys, the use of greenways and parks, and participation in community charrettes, with a particular focus on engagement and impact in underserved communities. One way we will mark the completion of the project and launch of the newly restored habitat is through a celebration event for residents and stakeholders. The event itself will be an example of how to activate the space for future events. It will celebrate the project, its ecological benefits, and new ways it offers people to connect with the river. The proposed outreach programs and events will seek to create a deeper connection between the people in the Naugatuck River Valley and the river itself, which is essential to the maintenance and protection of this natural resource. We aim to engage the community not only in this barrier removal project, but in broader waterway conservation and restoration efforts that make a larger impact on the sustainability of Long Island Sound and its tributaries.

5.c. Community Outreach and Education

Consistent with NVCOG's Public Outreach Policy, the outreach strategy for this project will include multiple forms of outreach to share information and educational content with the public on barrier removal and fish passage, with an emphasis on digital engagement. This will include noticing the public through means of legal notice, community calendars, mailing list, newsletter, press release(s), social media, and the NVCOG webpage. A minimum of three hybrid public information meetings will be held during critical stages of the project to provide updates and educate the public, with Community Liaisons helping to invite broad participation from underserved communities. NVCOG, in collaboration with Save the Sound and the Community Liaisons, will develop educational outreach materials in multiple languages to ensure broad accessibility, including PowerPoint presentations, flyers, handouts, etc. to provide to Minority-Serving Institutions (MSIs), cultural and community organizations, and environmental stakeholders such as the Waterbury River Brigade, local nature centers, Conservation Commissions, and land trusts in addition to Save the Sound's wider regional audience.

The outreach strategy will also include creation of digital educational content, including the promotion of the Naugatuck River Restoration Coalition's regularly-updated interactive story map about the Kinneytown Dam project and site, as well as the production of a documentary film that will highlight the history and ecology of the Naugatuck River and the collaborative advocacy that will lead to barrier removal and restoration. We will host at least four press visits, as well as river clean-up events to provide volunteer opportunities and encourage support for restoration and stewardship.

FORM **CD-511**
(REV 1-05)

U.S. DEPARTMENT OF COMMERCE

CERTIFICATION REGARDING LOBBYING

Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 28, 'New Restrictions on Lobbying.' The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant, or cooperative agreement.

LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over $100,000 or a loan or loan guarantee over $150,000 as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying.' in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure occurring on or before October 23, 1996, and of not less than $11,000 and not more than $110,000 for each such failure occurring after October 23, 1996.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

In any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, 'Disclosure Form to Report Lobbying,' in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure occurring on or before October 23, 1996, and of not less than $11,000 and not more than $110,000 for each such failure occurring after October 23, 1996.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification.

* NAME OF APPLICANT

Naugatuck Valley Council of Governments

* AWARD NUMBER

NOAA-NMFS-HCPO-2022-20072

* PROJECT NAME

Removing Kinneytown Dam to Restore Fish Passage & Advance EJ

Prefix: Mr.

* First Name: Rick

Middle Name:

* Last Name: Dunne

Suffix:

* Title: Executive Director

* SIGNATURE:

Completed by Grants.gov upon submission.

* DATE:

Completed by Grants.gov upon submission.

Budget Narrative File(s)

*** Mandatory Budget Narrative Filename:** NVCOG Kinneytown - Rev Budget Narrative - 8.12.22.p

Add Mandatory Budget Narrative | Delete Mandatory Budget Narrative | View Mandatory Budget Narrative

To add more Budget Narrative attachments, please use the attachment buttons below.

Add Optional Budget Narrative | Delete Optional Budget Narrative | View Optional Budget Narrative

Budget Narrative

Total Direct Costs: $17,426,494

Personnel (Federal), $0

There will be no direct cost for personnel taken from the federal grant

Personnel (Non-federal), $264,796

The applicant NVCOG will provide all required grants administration, staffing and oversight using its extensive project management team. (See: Detailed Project Budget Table below)

Fringe Benefits (Federal), $0

There will be no fringe cost for personnel taken from the federal grant

Fringe Benefits (Non-federal), $164,476

(See: Detailed Project Budget Table below)

Travel (Federal), $0

There will be no travel cost taken from the federal grant

Travel (Non-federal), $5,000

(See: Budget Summary Table below)

Equipment (Federal), $0

There will be no equipment cost for this project

Equipment (Non-federal), $0

There will be no equipment cost for this project

Supplies (Federal), $0

There will be no supplies cost for this project

Supplies (Non-federal), $0

There will be no supplies cost for this project

Contractual (Federal), $12,374,575

Upon execution of a term sheet under an MOU between the parties, NVCOG will use funding to acquire the assets of the Kinneytown Hydro Project Inc. from Hydroland, Inc. for one dollar and other consideration. Following acquisition, the owners will contribute the land and assets currently appraised at $2,291,934 for tax purposes. Upon transfer of title the applicant will proceed with decommissioning at the FERC. During the decommissioning process all engineering and Survey work will be completed. Upon completion of Full project assessment by EPA contractors, engineers will be procured, alternatives developed and the project will be designed (see Other (federal) below for subawardee detail activities. Following design and community engagement activities, Contractors will be hired to carry out construction activities associated with the Kinneytown Dam Project. This includes funding for the project contractor(s) and subcontractors, all heavy equipment, heavy equipment operators, contract labor and project materials. Costs are estimated from conceptual design plan developed by an experienced civil engineer with more than 40 dam removal projects to her credit – including the five prior removals above Kinneytown on this river. The full contractual detail is in the Contractual Cost Detail Table (below).

The total Project costs for the current phase are estimated at $17,426,494, and our request is for $15,000,000. All consulting engineers will be selected using a Quality-Based Selection Process, and all contractors will be selected competitively.

Contractual (Non-federal), $1,600,000

SECURED: The State of Connecticut will provide $1,600,000 of the total project costs for this current phase. (SEE: CTDEEP MATCH COMMITMENT letter below)

Contractual (Other-federal) $392,222

Environmental Protection Agency Targeted Brownfields Assessment Grant, $392,222

REQUESTED: NVCOG has requested $392,222 of federal funds from the Environmental Protection Agency's "Targeted Brownfields Assessment" Program. The grant application noted that the actual project costs may range between $350,000 and $450,000 due to unknown variables. If funded, the EPA will provide direct services to accomplish ***all*** tasks. EPA Region 1 Brownfields Coordinator estimates that a determination on this grant will be made by the end of the calendar year. (see: SUPPLEMENTAL MATERIALS for attached support letter from EPA Region 1)

Other (Federal), $2,625,425

- Funds in the amount of $2,625,425 will be allocated to Save the Sound as a subawardee in order to cover time, travel, and material costs incurred on a scope of work including:

  Engineering, Design, and Permitting, $1,715,307

  - $43,177 for bidding and administration of project engineering contract, and consultation with NVCOG on the development of construction contract bid documents;
    - SUB-CONTRACT: $1,296,249 is included in Save the Sound's subaward for project design, permitting, and construction oversight tasks which will be contracted to a professional engineering firm with experience in large-scale dam removal. A breakdown of this budgeted engineering contract by task is provided in the Project Designs section of this application.
  - $212,210 for management and oversight of project engineering related to dam removal;
  - $90,724 for coordination of project permitting for sediment management, dam removal;
  - $47,928 for legal coordination and assistance with acquisition and FERC decommissioning;
  - $25,019 for leading and/or participating in coordination meetings and activities with project partners and agencies including NOAA, USFWS, CT DEEP, and FERC throughout the project;

  Inclusive Community Outreach and Engagement, $332,620

  - $151,955 for inclusive community outreach and engagement efforts, including purchase, translation, production, and publication/dissemination of outreach materials and signage throughout the three-year project period;
    - SUB-CONTRACTS: a total of $75,000 is included in Save the Sound's subaward for hiring three Community Liaisons from underserved communities benefitted by the project;
  - $5,665 to contract with and assist in the production of a documentary film about the project;
    - SUB-CONTRACT: $100,000 for project partner Naugatuck River Revival Group (NRRG) to organize volunteer cleanup events and produce a documentary film about the project, in addition to providing other project support and capacity;

Pre-Implementation and Implementation Monitoring, $264,784

- $28,493 to maintain the existing Denil fishway on Kinneytown Dam in Years 1 and 2 in order to allow for some fish passage prior to full barrier removal;
- $236,291 to produce an Implementation Monitoring Plan (IMP) in consultation with CT DEEP, NOAA, and USFWS, and perform pre-implementation water quality and fish passage monitoring, as well as implementation monitoring according NOAA's Tier 1 Guidance;

Construction, $312,715

- $94,064 to oversee project construction bid process (led by NVCOG), including legal review of bid documents, assistance in identifying qualified contractors, conducting/attending a pre-bid site visit, reviewing bids, and assisting with selecting and contracting the chosen contractor;
- $218,650 for project management of dam removal construction (construction contract held by NVCOG), including coordination with project engineer, contractor, partners, and regulators, as well as regular construction observation.

Total Indirect Costs: $0

The applicant is not charging any Indirect Costs to this project

Other: In-Kind and Leveraged Contributions $2,474,333

CTDEEP- In-Kind services for sampling and monitoring, $182,399

CTBLB – In-Kind Contribution of Kinneytown Hydro Project Inc land and assets currently appraised at $2,291,934

Other: Future Applications to be Made to USEPA Brownfields Program Multi-Purpose Grant; Cleanup funds

Upon completion of the EPA funded assessment phase and agreement with CTDEEP on sediment and soils management plan and remedial action plan permitting, NVCOG will apply for funding to conduct remedial management and cleanup of sediments and soils throughout the impoundment pursuant to agreement with the CTDEEP Remediation and Fisheries Divisions.

Detailed Project Budget Table

Budget Object Class	Calculations Rate	Calculations # Units	Totals NOAA Request	Totals Federal Match	Totals Non-Federal Match
Personnel			**$ -**	**$ -**	**$ 264,796**
Senior Environmental Planner	44.66	1,392			62,179
Environmental Planner	33.93	473			16,055
Communications Manager	38.04	683			25,962
Communications Associate	32.38	546			17,677
Brownfields Project Manager	43.20	637			27,521
Brownfields Environmental Planner	32.38	819			26,516
Executive Director	85.44	455			38,877
Regional Transportation Engineer	51.70	91			4,705
Regional Engineer	33.52	91			3,050
Finance Director	52.72	419			22,068
Finance Manager	43.48	273			11,869
Staff Accountant	29.48	282			8,316
Fringe Benefits (62% of salaries/wages)	62%		**$ -**	**$ -**	**$ 164,476**
Travel			**$ -**	**$ -**	**$ 5,000**
Local Miles (400 trips)	0.62	8,065			5,000
Equipment			**$ -**	**$ -**	**$ -**
Supplies			**$ -**	**$ -**	**$ -**
Contractual			**$ 12,374,575**	**$ 392,222**	**$ 1,600,000**
Legal - Acquisition			220,000		
Legal - Regulation / Decommission			687,000		
Facility Oversight & Management			193,000		
Soil & Sediment Management & Design				392,222	
Siphon Design			310,000		
Siphon Construction Oversight			294,000		
Dam Removal			10,670,575		1,600,000
Construction			**$ -**	**$ -**	**$ -**
Other			**$ 2,625,425**	**$ -**	**$ -**
Sub-Award (Save The Sound)					
Personnel			632,071		
Fringe Benefits (28% of Personnel)			176,980		
Travel	0.62	50,807	37,500		
Supplies			55,550		
Contractual			1,496,249		
Engineering & Permitting			1,296,249		
Outreach and Communications			75,000		
NRRG: Documentary & Assistance			100,000		
Legal (General Counsel)			25,000		
Total Direct Charges (Sub-Award)			2,398,349		
Indirect Charges (22.66% of TMDC)			227,076		
Total (Sub-Award)			2,625,425		
Total Direct Costs			**$15,000,000**	**$ 392,222**	**$2,034,272**
Indirect Calculation			**$ -**	**$ -**	**$ -**
Total Indirect Costs			**$ -**	**$ -**	**$ -**
Total Costs			**$15,000,000**	**$ 392,222**	**$2,034,272**

Budget Summary Table

Object Class	Budget	Source / Type of Funds: Federal Request	Source / Type of Funds: Federal Matching	Source / Type of Funds: Non-Federal Matching	Federal Request: Year 1	Federal Request: Year 2	Federal Request: Year 3	Federal Matching: Year 1	Federal Matching: Year 2	Federal Matching: Year 3	Non-Federal Matching: Year 1	Non-Federal Matching: Year 2	Non-Federal Matching: Year 3	Total by Year: Year 1	Total by Year: Year 2	Total by Year: Year 3
Personnel	264,796	-	-	264,796	-	-	-	-	-	-	105,822	76,358	82,617	105,822	76,358	82,617
Fringe Benefits	164,476	-	-	164,476	-	-	-	-	-	-	63,568	46,814	54,093	63,568	46,814	54,093
Travel	5,000	-	-	5,000	-	-	-	-	-	-	1,667	1,667	1,667	1,667	1,667	1,667
Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contractual	14,366,797	12,374,575	392,222	1,600,000	537,000	418,000	11,419,575	392,222	-	-	533,333	533,333	533,333	1,462,555	951,333	11,952,908
Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	2,625,425	2,625,425	-	-	1,310,253	504,156	811,016	-	-	-	-	-	-	1,310,253	504,156	811,016
Total Direct Charges	**17,426,494**	**15,000,000**	**392,222**	**2,034,272**	**1,847,253**	**922,156**	**12,230,591**	**392,222**	**-**	**-**	**704,390**	**658,172**	**671,710**	**2,943,864**	**1,580,328**	**12,902,301**
Indirect Charges	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	**17,426,494**	**15,000,000**	**392,222**	**2,034,272**	**1,847,253**	**922,156**	**12,230,591**	**392,222**	**-**	**-**	**704,390**	**658,172**	**671,710**	**2,943,864**	**1,580,328**	**12,902,301**

Contracutal Cost Detail Table

Contractual	Total	Federal Request	Federal Matching	Non-Federal Matching	Federal Request: Year 1	Federal Request: Year 2	Federal Request: Year 3	Federal Matching: Year 1	Federal Matching: Year 2	Federal Matching: Year 3	Non-Federal Matching: Year 1	Non-Federal Matching: Year 2	Non-Federal Matching: Year 3	Total by Year: Year 1	Total by Year: Year 2	Total by Year: Year 3
Legal - Acquisition	220,000	220,000	-	-	75,000	75,000	70,000	-	-	-	-	-	-	75,000	75,000	70,000
Legal - Regulation / Decommission	687,000	687,000	-	-	45,000	257,000	385,000	-	-	-	-	-	-	45,000	257,000	385,000
Facility Oversight & Management	193,000	193,000	-	-	107,000	86,000	-	-	-	-	-	-	-	107,000	86,000	-
Soil & Sediment Management & Design	392,222	-	392,222	-	-	-	-	392,222	-	-	-	-	-	392,222	-	-
Siphon Design	310,000	310,000	-	-	310,000	-	-	-	-	-	-	-	-	310,000	-	-
Siphon Construction Oversight	294,000	294,000	-	-	-	-	294,000	-	-	-	-	-	-	-	-	294,000
Dam Removal	12,270,575	10,670,575	-	1,600,000	-	-	10,670,575	-	-	-	533,333	533,333	533,333	533,333	533,333	11,203,908
Total Contractual	**14,366,797**	**12,374,575**	**392,222**	**1,600,000**	**537,000**	**418,000**	**11,419,575**	**392,222**	**-**	**-**	**533,333**	**533,333**	**533,333**	**1,462,555**	**951,333**	**11,952,908**

Other	Total	Federal Request	Federal Matching	Non-Federal Matching	Federal Request: Year 1	Federal Request: Year 2	Federal Request: Year 3	Federal Matching: Year 1	Federal Matching: Year 2	Federal Matching: Year 3	Non-Federal Matching: Year 1	Non-Federal Matching: Year 2	Non-Federal Matching: Year 3	Total by Year: Year 1	Total by Year: Year 2	Total by Year: Year 3
Sub-Award (Save The Sound)	2,625,425	2,625,425	-	-	1,310,253	504,156	811,016	-	-	-	-	-	-	1,310,253	504,156	811,016
Total Other	**2,625,425**	**2,625,425**	**-**	**-**	**1,310,253**	**504,156**	**811,016**	**-**	**-**	**-**	**-**	**-**	**-**	**1,310,253**	**504,156**	**811,016**

Additional In-Kind & Leveraged Contributions	Total	Federal Request	Non-Federal Matching	Leveraged Contributions	Federal Request: Year 1	Federal Request: Year 2	Federal Request: Year 3	Federal Matching: Year 1	Federal Matching: Year 2	Federal Matching: Year 3	Non-Federal Matching: Year 1	Non-Federal Matching: Year 2	Non-Federal Matching: Year 3	Total by Year: Year 1	Total by Year: Year 2	Total by Year: Year 3
Dam Appraised Value (CTDEEP Contribution)	2,291,934	-	-	2,291,934	-	-	-	2,291,934	-	-	-	-	-	2,291,934	-	-
In-Kind (DEEP)																
Personnel	78,818	-	-	78,818	-	-	-	25,500	26,265	27,053	-	-	-	25,500	26,265	27,053
Travel	9,000	-	-	9,000	-	-	-	3,000	3,000	3,000	-	-	-	3,000	3,000	3,000
Total Direct Charges (In-Kind)	87,818	-	-	87,818	-	-	-	28,500	29,265	30,053	-	-	-	28,500	29,265	30,053
Indirect Charges (120% of Salary)	94,582	-	-	94,582	-	-	-	-	-	-	30,600	31,518	32,464	30,600	31,518	32,464
Total (In-Kind)	182,399	-	-	182,399	-	-	-	28,500	29,265	30,053	30,600	31,518	32,464	59,100	60,783	62,516
Total Contractual	**2,474,333**	**-**	**-**	**2,474,333**	**-**	**-**	**-**	**2,320,434**	**29,265**	**30,053**	**30,600**	**31,518**	**32,464**	**2,351,034**	**60,783**	**62,516**

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

August 12, 2022

Melanie Gange
Competition Manager
Restoring Fish Passage through Barrier Removal Grants competition
NOAA Restoration Center
1315 East-West Highway (F/HC3)
Silver Spring, MD 20910

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

Dear Ms. Gange,

I write to inform you that the Connecticut Department of Energy and Environmental Protection (CT DEEP) preliminarily commits to providing matching contributions of up to $1.6 million in support of the Naugatuck Valley Council of Governments' (NVCOG) application to NOAA for a grant (the "Grant") pursuant to NOAA's Restoring Fish Passage through Barrier Removal Funding Opportunity. This commitment is contingent upon conveyance of the property to the specified entity designated by NVCOG and success securing federal funding for the Project, to be memorialized in a contract with such entity prior to any transfer of funds.

The matching contributions provided by CT DEEP in support of NVCOG's efforts to remove the Kinneytown Dam would complement NOAA's investment. This letter is intended to support NVCOG's response to § 4.b. of the Grant application and its Budget Narrative.

Separately, CT DEEP has provided a letter strongly supporting NVCOG's application for the Grant. CT DEEP will provide further support and partnership through these matching contributions.

Please let me know if you have any questions.

Sincerely,

Katherine S. Dykes

Katherine S. Dykes
Commissioner, Connecticut Department of Energy and Environmental Protection

OMB Number: 4040-0007
Expiration Date: 02/28/2025

ASSURANCES - NON-CONSTRUCTION PROGRAMS

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C.§§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593(identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

19. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Completed on submission to Grants.gov	Executive Director
APPLICANT ORGANIZATION	DATE SUBMITTED
Naugatuck Valley Council of Governments	Completed on submission to Grants.gov

Standard Form 424B (Rev. 7-97) Back

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Federal Request	11.463	$	$	$ 15,000,000.00	$	$ 15,000,000.00
2. Matching Funds					2,034,272.00	2,034,272.00
3. Other: Federal Match				392,222.00		392,222.00
4.						
5. Totals		$	$	$ 15,392,222.00	$ 2,034,272.00	$ 17,426,494.00

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 1

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total
	(1)	(2)	(3)	(4)	(5)
	Federal Request	Matching Funds	Other: Federal Match		
a. Personnel	$	$ 264,796.00	$	$	$ 264,796.00
b. Fringe Benefits		164,476.00			164,476.00
c. Travel		5,000.00			5,000.00
d. Equipment					
e. Supplies					
f. Contractual	12,374,575.00	1,600,000.00	392,222.00		14,366,797.00
g. Construction					
h. Other	2,625,425.00				2,625,425.00
i. Total Direct Charges (sum of 6a-6h)	15,000,000.00	2,034,272.00	392,222.00		$ 17,426,494.00
j. Indirect Charges					$
k. TOTALS (sum of 6i and 6j)	$ 15,000,000.00	$ 2,034,272.00	$ 392,222.00	$	$ 17,426,494.00
7. Program Income	$	$	$	$	$

Authorized for Local Reproduction

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Federal Request	$	$	$	$
9. Matching Funds	$ 434,272.00	$ 1,600,000.00	$	$ 2,034,272.00
10. Other: Federal Match	$	$	$	$
11.	$	$	$	$
12. TOTAL (sum of lines 8-11)	$	$ 1,600,000.00	$	$ 2,034,272.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 2,239,474.00	$ 380,836.00	$ 935,012.00	$ 738,901.00	$ 184,725.00
14. Non-Federal	$ 704,390.00	$ 70,439.00	$ 281,756.00	$ 281,756.00	$ 70,439.00
15. TOTAL (sum of lines 13 and 14)	$ 2,943,864.00	$ 451,275.00	$ 1,216,768.00	$ 1,020,657.00	$ 255,164.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS) (b)First	(c) Second	(d) Third	(e) Fourth
16. Federal Request	$ 922,156.00	$ 12,230,592.00	$	$
17. Matching Funds	$ 658,172.00	$ 671,710.00	$	$
18. Other: Federal Match	$	$	$	$
19.	$	$	$	$
20. TOTAL (sum of lines 16 - 19)	$ 1,580,328.00	$ 12,902,302.00	$	$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges: All Costs explained in Budget Narrative

22. Indirect Charges: None

23. Remarks: All Costs explained in Budget Narrative

Other Attachment File(s)

*** Mandatory Other Attachment Filename:** NVCOG Kinneytown - Supplemental Materials - 8.13.2

Add Mandatory Other Attachment | Delete Mandatory Other Attachment | View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment | Delete Optional Other Attachment | View Optional Other Attachment

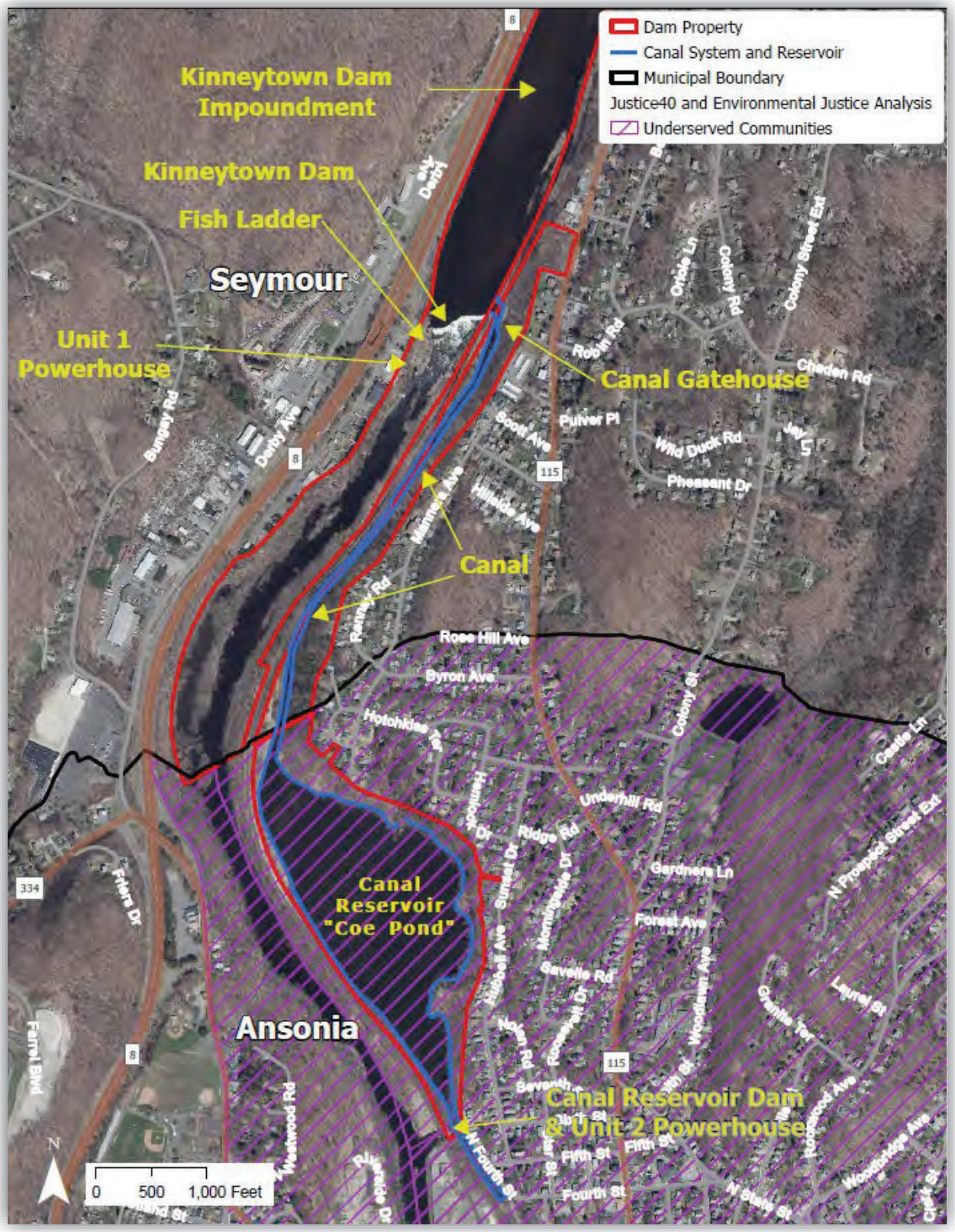
NAUGATUCK VALLEY
COUNCIL of GOVERNMENTS
49 Leavenworth Street, 3rd Floor, Waterbury, CT 06702 • 203-757-0535 • 203-735-8688 • nvcogct.gov

Supplemental Materials Cover Page

For additional reference materials (including an interactive storymap, planning documents, photos, valuations, videos, economic impact assessments, and other data), please visit the following webpage:

https://www.nvcogct.gov/noaa

Project Area Map with Aerial Imagery



Rick Dunne

Executive Director | Naugatuck Valley Council of Governments

49 Leavenworth St. 3rd Fl

Waterbury, Connecticut 06702

rdunne@nvcogct.gov | Mobile: (203) 823-3340

SUMMARY

- Executive Public Administrator with 40 years of overall management experience in Municipal / Regional / State Government and the Private Sector
- 27 years' experience as an Executive Director of government agencies, including 18 years guiding an MPO & 9 years leading Economic Development
- Municipal Chief Financial Officer with operational and investment responsibility
- Managed teams of up to 10 direct reports with over 50 indirect reports
- Secured & Managed over $150 million in non-recurring grant awards since 2010

RELEVANT PROFESSIONAL EXPERIENCE

Executive Director – (December 2004 – Present)
Naugatuck Valley Council of Governments (NVCOG)
NVCOG is the federally-authorized Metropolitan Planning Organization (MPO) and direct federal recipient engaged in Transportation & Land Use Planning, Analysis & Design of Transportation Systems, Economic Development, Brownfields Land Redevelopment, Project Management and coordination of municipal Shared Services.

- Program Director for regional EPA Brownfields Redevelopment program

President – (December 2020 – Present)
Connecticut Brownfields Land Bank (CTBLB)
CTBLB is a statutorily-authorized non-profit created specifically to undertake large-scale public works projects to reclaim contaminated and abandoned sites, restoring them to productive us on behalf of the people and environment of the state of Connecticut

City of Derby
Director of Planning & Economic Development –Derby, CT (March 1995-December 2004)
Municipal Agency Executive reporting directly to the legislative body with daily ordering and direction from the CEO.

- Full responsibility to administer all State and Federal Grants. Municipal Liaison to all federal, state and regional agencies.
- Director of HUD-funded CDBG Program

City Treasurer – Derby, CT (May 1992-March 1995)
Chief Financial Officer of the City of Derby, CT

- Municipal CFO, Pension Fund Administrator. Managed five indirect reports. Responsibility for direction & management of all aspects of municipal financial operations including investments, debt obligations & cash management. Coordinated financial policy between various elected and appointed boards and offices.
- Managed $40 million Bond Issue for infrastructure improvements and refinancing.

Laura Wildman, PE

Fisheries and Ecological Restoration Engineer

EMPLOYMENT

2022 – Current	Save the Sound, New Haven, CT, Regional Director of Ecological Restoration
2019 – 2022	Biohabitats, Inc., Glastonbury, CT, Practice Lead and Fisheries and Ecological Restoration Engineer
2009 – 2019	Princeton Hydro, Glastonbury, CT, Director of New England Regional Office and River Restoration Practice Area Lead
2001 – 2009	American Rivers, Glastonbury, CT, Chief Engineer and Director of the Northeast Field Office
1991 – 2001	Milone & MacBroom, Cheshire, CT, Project Manager and Water Resource Engineer
1989 – 1991	Urban Design, Inc. Kirkland, WA, Water Resource Engineer

EDUCATION

Post Graduate Work, Engineering & the Environment-Focus Dam Removal, University of Southampton, United Kingdom, 2015-2018
M.E.M., Environmental Management, Yale University, CT, 2004
B.S., Civil Engineering, University of Vermont, Burlington, 1989

PROFESSIONAL REGISTRATION

Connecticut Professional Engineer
New York Professional Engineer
Maine Professional Engineer

STRENGTHS

Experienced leader
Solution-oriented
Creative/Collaborative problem solver
Nationally recognized technical expert with 32 years of applied experience

AWARDS

NOAA Restoration Center Award for Leadership in Restoration for Service in Fish Passage Engineering
Coastal America Spirit Award for Anadromous Fish Restoration
Chief Polin Award for Efforts to Restore the Presumpscot River and Rivers Across the Nation

EXPERIENCE

Laura Wildman has worked since 1989 as a professional water resource/fisheries engineer focusing on fish passage, barrier removal and river restoration. She has been involved in hundreds of dam removal, fish passage, and river restoration projects throughout the US, working on all aspects of the projects from inception through design and construction. Ms. Wildman is considered one of the foremost national experts on dam removal and nature-like fishways, speaking regularly around the country and internationally on these subjects, publishing papers and books, and developing and assisting with the instruction of courses at the University of Wisconsin and Yale, and multiple conferences, in dam removal, fish passage, and river processes/restoration for over 20 years.

She has established three regional offices for the private and environmental non-profit sectors and has established networks with the federal, state and NGO partners working on fish passage and dam removal throughout the greater northeast and globally. In 2010 she developed and now leads the Dam Removal and Fish Passage Network on LinkedIn with nearly 2,000 members internationally.

In addition to her work in fish passage and barrier removal, Ms. Wildman also has significant work experience in fluvial geomorphology, fisheries habitat/flow analysis, dam modification/repair, open channel hydraulics, sustainable flood management, grant coordination, public outreach, and advanced hydraulic and sediment transport modeling.

Save the Sound®
Action for our region's environment.

RELEVANT DAM REMOVAL AND FISH PASSAGE PROJECT EXPERIENCE

- Naugatuck River Dam Removals: Anaconda, Freight St., Union City, Platts Mill Dams (CT)*
- Naugatuck River Dam Removal Assessments: Brays Buckle, Chase Brass, Tingue, & Plume & Attwood Dams (CT)*
- Pizzini Dam Removal (CT)
- Raymond Brook Dam Removal (CT)
- Zemko Dam Removal – Technical & Construction Oversight (CT)
- Springborn Dam Removal – Technical Oversight (CT)
- Willimantic Dam Removals – Technical Oversight (CT)
- Coginchaug River – Dam Removal Assessments for Starr Mill Pond and Savage Mill Dams (CT)
- Williams Street Pond Dam Alt. Analysis (CT)
- Hyde Pond Dam Alt. Analysis & Removal (CT)
- Spoonville Dam Removal (CT)
- Middle Street Dam Removal (CT)
- Heminway Pond Dam Removal (CT)
- West Branch Saugatuck Ford Removal (CT)
- Pond Lily Dam Removal Sediment Assessment (CT)
- Moosup River Dam #1 (Hale Factory) Removal (CT)
- Papermill Dam Alt. Analysis & Removal (CT)
- Kaman Dam Removals – 2 dams (CT)*
- Carpenters Dam Removal (CT)
- Clark Brothers Dam Removal (CT)
- Griswold Dam Removal (CT)
- Noroton Fish Passage (CT)
- Furnace Brook Fish Passage (CT)
- Highland Pond Dam Removal (CT)
- Winchell-Smith Dam Fishway (CT)
- Saccarappa Fish Passage Assessment ^ Preliminary Design (ME)
- Penobscot Dam Removals – Technical Oversight – Great Works & Veazie (ME)
- Cumberland Dam Removal on the Presumpscot – Technical Oversight (ME)
- Milbury Dam Removal Assessment– Technical Assistance (MA)
- Cobbesecontee Dam Removal – Technical Assistance (ME)
- Winnicut Dam Removal – Technical Assistance (NH)
- Merrimack Village Dam – Technical Assistance (NH)
- Cuddebackville Dam Removal –– Technical Assistance (NY)
- Pawtuxet Dam Removal Assessment – Technical Assistance (RI)
- East Burke Dam Removal – Technical Assistance (VT)
- Matilija Dam Removal – Technical Review (CA)
- Presumpscot Dam Removals – Technical Assistance (ME)
- Billington Street Dam Removal Preliminary Design (MA)
- Edwards Dam Removal – Technical Oversight (ME)
- Furnace Brook Barrier #1 Dam Removal Design/Build (NY)
- Maiden Lane Dam Removal Design (NY)
- Strooks Felt Dam Removal Design/Build (NY)
- Lower Cragston Dam Engineering & Dam Removal Assessments (NY)
- Firth Cliff Dam Removal Assessment (NY)
- Eddyville Dam Removal Assessment (NY)
- Oars Mill Dam Removal Assessment (NY)
- Moodna Barrier #1 Removal Assessment (NY)
- Honk Falls Dam Removal – Preliminary Design Assistance (NY)
- Sprout Brook Dam Removal (NY)
- Tannery Brook Dam Removal (NH)
- Horseshoe Pond Dam Alt. Analysis & Removal (MA)
- Tel-Electric Dam Removal (MA)
- Hunters Mill Pond Dam Alt. Analysis & Removal (MA)
- Marshfield-8 Dam Removal (VT)
- Rakes Pond & Marshall's Pond Dam Removals – 2 dams (PA)*
- Plymouth Crossing Dam Removal (PA)
- Millstone Dam Removals – 2 dams (NJ)*
- Finesville Dam Removal Feasibility Study (NJ)
- Cumberland Dam Removal Assessment (MD)
- San Clemente Dam Removal Technical Advisory Team – 2 dams (CA)*
- Otsego Dam Removal Expert Assistance – 2 dams (MI)*
- Lassiter Dam Removal (NC)
- Lawrence Brook Fish Passage – 2 dams (NJ)
- Neuss River Restoration & Fish Passage Assessment (NC)
- Old Mill Fishway (NJ)

**Denotes projects with multiple consecutive dams*

Long Island Soundkeeper - Save the Sound, Inc./Waterkeeper Alliance - Aug 2017 to Present

Addressing water quality issues, fish passage planning and identifying potential habitat restoration projects. Advocating in Federal, CT/NY state legislatures for fisheries and water policy and legislation.

Project Manager – University of Hawaii - Kauai Invasive Species Committee June 2014-July 2017

Research Corporation UH program for early detection/rapid response of invasive species. Cooperative research with HI divisions of fisheries, forestry, agriculture, USDA and USFWS spill mitigation funds.

Director of Coastal Planning/Yakutat Salmon Board/ City and Borough of Yakutat, AK 2003-2014

Managed watershed council for fish habitat restoration with stake-holders across federal, state, municipal and tribal lands. Restoration included 30 miles of road decommissioning, 10 fish passage culvert/bridge projects, 1,200 acres of thinning, stream gauge installation, spawning escapement counts, anadromous waters mapping, salmon genetics, NMFS Nearshore Fish Atlas seine/trawl. Borough Coastal Coordinator for NOAA's AKCMP. NMFS LOA marine mammal stranding responder. Borough Planner, Acting City Manager.

Fish and Wildlife Technician GS-5/7/9 1995 — 2003 – Permanent Status

Prepared annual program budgets. Assisted preparation of NEPA. Projects included: salmon radio telemetry, water quality assessments, bathymetry, fish barrier assessment, road condition surveys, bird banding, BBS, moose capture. Over 500 hours of aerial surveys including tribal and NMML seal ship disturbance study.

U.S. Peace Corps Volunteer Fisheries Extensionist, Guatemala 1992 – 1994

Other -Sea Turtle RA: Texas A&M, Cost Rica 1991, **Atlantic Salmon RA:** UVM 1991, **Salmon Habitat Volunteer**: USFS, Klamath NF 1991, **Natural Resource Education Instructor** VT-FWD - 1988-89.

EDUCATION

Oregon State University 2019 – Graduate Certificate in Fisheries Management

University of Vermont 1991- B.S. Fish and Wildlife Biology – Fisheries option

Selected Publications and Technical Reports

Traditional Knowledge and Historical and Opportunistic Sightings of Beluga Whales, Delphinapterus leucas, in Yakutat Bay, Alaska, 1938–2013. Marine Fisheries Review 2015

Acoustic Monitoring and Prey Association for Beluga Whale, Delphinapterus leucas, and Harbor Porpoise, Phocoena phocoena, off Two River Mouths in Yakutat Bay, A. Marine Fisheries Review 2015

Effects of riparian buffer widths on salmon streams in a distal outwash plain near Yakutat, Alaska. September 2012. Lucey, W., B. Heermans and T. Kohler – Report to the Alaska Board of Forestry

Range and abundance of an introduced population of northern pike (*Esox lucius*) in an urban watershed of Yakutat, Alaska. September 2004. Lucey, W. and N. Endicott., Invasive Species Division, ADF&G

The genetic ecology and population origins of the beluga whale, Delphinapterus leucas, of Yakutat Bay, Alaska. Marine Fisheries Review

Monitoring white whales (Delphinapterus leucas) with echolocation loggers Polar Biology **2012**

Nominated by Gov. Lamont: 2019 & 2020 for at-large/CT seats on New England Fishery Management Council

Jon C. Vander Werff

EDUCATION:

University of Rhode Island, Kingston, RI, Graduated May 2018
Masters of Environmental Science Management, Watershed Management and Stream Restoration
University of Rhode Island, Kingston, RI, Graduated May 2018
Graduate Certificate, GIS and Remote Sensing
State University of New York at Cobleskill, Cobleskill, NY, Graduated May 2015
Bachelor of Technology, Wildlife Management concentration in Fisheries

PROFESSIONAL EXPERIENCE

Save the Sound, New Haven, CT:
Fisheries Biologist, March 2018 – Present

- Collaborate with state agency to conduct diadromous fish trapping and electrofishing studies
- Develop ecological monitoring at numerous dam removal sites across CT state
- Construction oversight at in-stream barrier removal and fish ladder projects
- Implemented green infrastructure practices on small and large scale
- Utilize GIS to delineate watersheds and identify potential areas for restoration
- Assisted in redd surveys, fluvial geomorphology analyses and habitat assessments
- Conducted educational programs for students K-12, collegiate and adult professionals

University of Rhode Island, Kingston, RI:
Graduate Research Ecologist, March 2017- May 2018

- Created a study design to monitor dam influence on water temperature and Brook Trout
- Used snorkel surveys to evaluated Brook Trout habitat and suggested restoration opportunities
- Engaged regional stakeholders and assessed their needs and issues
- Collaborated with RI State Fisheries Agency stressing management concerns
- Cataloged weekly trends in riparian vegetation, entomology, herpetology and wildlife
- End Results were the First Brook Trout Preserve in RI State, the Beaver River

National Science Foundation (NSF) Future of Dams Project, Kingston, RI:
Assistant Researcher, April 2018 – May 2018

- Assisted in construction of telemetry units
- Placed esophageal and PITT tags in River Herring and American Shad
- Monitored anadromous fish migrations at various fish passage and dam removal sites

Rhode Island Department of Environmental Management, West Kingston, RI:
Research Technician, May 2017 – August 2017

- Operated backpack and barge electrofishing units to survey Brook Trout populations
- Clipped pelvic fins and processed samples for genetic analysis
- Took morphometric measurements of Brook Trout for population dynamic data
- Collected Brook Trout scale samples and used them to age fish

Brooks Lake Lodge, Dubois, WY:
Professional Fly Fishing Guide, June 2014-2016

- Educated clients on ethical fishing and conservation methods
- Successfully guided various types of fly fishing excursions for all skill levels
- Guided full day trips for multiple lifetime members of Trout Unlimited
- Used rod and reel to estimate migrations and feeding habits
- Upheld active log of observations of entomology, temperature, vegetation and wildlife

Otorongo Expeditions, Oran, Peru:
Fisheries Researcher, January 2014

- Conducted a biodiversity assessment of the Amazon River and immediate tributaries
- Deployed multiple styles of nets to survey various waters and size of fish
- Identified over 100 species of fish and translated the indigenous name to Latin name
- Used rod and reel to survey for benthic fish in the main stem of the Amazon River

Wolf Conservation Center, South Salem, NY:
Intern, March 2011-2014

- Constructed a nursery for wolf pups and caretaker
- Observed and recorded pregnant female wolf's behaviors
- Maintained enclosure fences, artificial wolf dens and assisted in feeding and transportation

Lewisboro Parks and Recreation Department, Lewisboro, NY:
Environmental Education Coordinator, July 2006-2013

- Organized environmental education lessons for children ages 7-11
- Educated kids how to properly bait hooks, tie knots and cast fishing rods
- Prepared nature presentations and displays of terrariums and aquariums for park visitors

HYDROLAND
GREEN ENERGY PARKS

August 10, 2022

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments

To Whom It May Concern,

I write as the Chief Executive Officer of Kinneytown Hydro Company, Inc. ("KHC"). KHC is the sole owner and operator of the Kinneytown Hydroelectric Project (FERC Project No. 6985) located in the towns of Ansonia and Seymour, Connecticut, on and adjoining the Naugatuck River. Project facilities include a spillway spanning the entire river, two powerhouses located on opposite sides of the river, headgates, a power canal, a fishway, and other related structures (hereinafter "Kinneytown Project").

KHC has been and continues to be engaged in productive communications with the Naugatuck Valley Council of Governments (NVCOG) and Save the Sound, Inc. (STS). NVCOG is a regional governmental entity and a subdivision of the State of Connecticut. NVCOG is applying to NOAA for a grant pursuant to NOAA's Restoring Fish Passage through Barrier Removal Funding Opportunity. STS is a non-profit corporation organized under the laws of the State of Connecticut. STS will be a sub-recipient under the Grant through NVCOG. NVCOG and STS have fully informed KHC regarding the purpose and contents of the grant application, namely to enable: (1) the transfer of ownership of the Kinneytown Project from KHC to Connecticut Brownfield Land Bank, Inc. (CBLB) or another entity designated by NVCOG, which I understand will possess the necessary legal authority and technical and financial ability to decommission the Kinneytown Project; (2) performance of needed technical, engineering, environmental and regulatory studies, analyses and plans, for the purpose of informing the new owner, regulators and the public of the appropriate methods for decommissioning, barrier removal, any required environmental remediation, and site restoration; (3) preparation and submission of all needed permit applications; and (4) decommissioning, barrier removal, required environmental remediation, and site restoration.

NOAA should also be aware that the productive conversations between KHC and NVCOG/STS are ongoing and include discussions intended to result in the transfer of ownership of the Kinneytown Project to CBLB, or another entity designated by NVCOG, consistent with the terms of the grant application and any required regulatory approvals.

On behalf of KHC, I want to express KHC's strong support for the application to be filed by NVCOG.

Finally, NOAA should be aware that KHC has granted NVCOG, STS and CBLB all needed access to the Project site as part of their preparation of this grant application and for such other purposes noted herein.

Thank you for your consideration of this letter of support.

Sincerely,

Cory Lagerstrom
CEO and authorized agent
Hydroland, Inc.

STATE OF CONNECTICUT

GOVERNOR NED LAMONT

August 12, 2022

The Honorable Richard Spinrad
Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator
U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

Dear Under Secretary Spinrad:

I write to express my support for the Naugatuck Valley Council of Governments' (NVCOG) application for funding through the National Oceanic and Atmospheric Administration's (NOAA) "Restoring Fish Passage Through Barrier Removal" grant program. If funded, NVCOG will remove the Kinneytown Dam on the Naugatuck River, a river that feeds the largest internal watershed in Connecticut and nourishes Long Island Sound. Removing this dam will reconnect migratory fish to the 29.2 mainstem river miles that have been inaccessible for more than 100 years.

Specifically, NVCOG proposes in their application to acquire and remove the Kinneytown Dam and Canal Reservoir Dam located in Ansonia and Seymour. The existing fish ladder, constructed in 1999, has never provided safe, effective, or timely passage of fish as it was intended to do, and became virtually inoperable when the facility ceased generating electricity in fall of 2020. The Connecticut Department of Energy & Environmental Protection and the Naugatuck River Restoration Coalition have populated the FERC's docket with evidence of this license exemption noncompliance. But recent progress by NVCOG has provided a unique opportunity to advance environmental goals that elected officials, regulators, and citizens have pursued for years.

210 CAPITOL AVENUE, HARTFORD, CONNECTICUT 06106
TEL (860) 566-4840 • www.governor.ct.gov
Governor.Lamont@ct.gov

STATE OF CONNECTICUT

GOVERNOR NED LAMONT

The Naugatuck River is an ecological and cultural focal point in our state. After enduring decades of pollution from industry, to the point that the river failed to support any aquatic life, it has made a dramatic comeback thanks to significant public investment and grassroots efforts. The next step in this river's restoration success story is eliminating the primary barrier to the migration of diadromous fish, achieving positive impacts to the entire ecosystem's food webs, nutrient cycling, and both recreational and subsistence fishing.

The removal of Kinneytown Dam will also mean the revitalization of a natural resource that impacts 72 Environmental Justice block groups in the project area. Environmental Justice is a central priority of my Administration, and this grant will remedy the blight of dilapidated buildings, heaps of trash, and a Significant Hazard dam from the underserved community of Ansonia, while providing upstream communities with a healthier river that will attract anglers and ecotourists.

Thank you in advance for your consideration of NVCOG's application.

Sincerely,

Ned Lamont
Governor

210 CAPITOL AVENUE, HARTFORD, CONNECTICUT 06106
TEL (860) 566-4840 • www.governor.ct.gov
Governor.Lamont@ct.gov

Congress of the United States
Washington, DC 20515

August 12, 2022

Carrie Selberg Robinson
Director
National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

Dear Director Robinson:

We write in strong support of the Naugatuck Valley Council of Governments' Restoring Fish Passage through Barrier Removal Funding Opportunity application. The requested funding would allow NVCOG and its partners to finally achieve a longstanding environmental and ecological goal of restoring abundant fish passage from Long Island Sound – the major saltwater body of water in Connecticut up the Naugatuck River to the inland town of Thomaston, including the many tributaries of the river in that region.

In 1996, the Connecticut Department of Energy and Environmental Protection (DEEP) issued and began implementing a plan to restore fish migration up the Naugatuck River, one of the chief waterways in Central Connecticut. Fish passage had been blocked for many years by a myriad of dams and hydroelectric facilities built during the industrial and post-industrial age. Over time, the majority of these obstructions to fish passage have been removed – only the Kinneytown Dam, the lowest dam on the Naugatuck River, remains.

Kinneytown Dam is part of two very small hydroelectric facilities under the oversight of the Federal Energy Regulatory Commission (FERC). Since 1983, FERC has required the provision of adequate fish passage, yet the current and most recent owners have failed to take any meaningful steps toward restoring robust fish passage. Indeed, the problem has gotten worse. In 2020, Fish and Wildlife Service (FWS) noted that between 2003 and 2013 the average annual fish count through the Kinneytown Dam was a meager 892. Since 2013 – after the Ansonia power plant went offline – the average fish count plunged even further to 159 fish.

For the past three years, a consortium of local and state government leaders and environmental groups – strongly supported by the undersigned Connecticut congressional delegation– has been pushing FERC to enforce the fish passage requirements or revoke the exemption. FWS has provided significant, critical input on what FERC should be requiring, citing the continuing existence of barriers to fish seeking passage upriver. The lack of action

through three fish migration seasons has led to mounting frustration among these parties and fear that long-lasting, perhaps permanent, damage to migration would occur.

This lack of action seemingly confirmed what the advocates have long assumed: that the electricity market economics do not justify the costs of repairing the fish passage to current standards and repairing the two power plants which have not produced electricity in several years.

As a result of this inaction, the ceding of ownership to the Naugatuck Valley Council of Governments with the goal of removing the Kinneytown Dam and installing solar fields will prove not only environmentally beneficial, but will also provide meaningful, clean generation.

Free flowing fish migration will be a huge boon to the economies of the river communities – offering many ways to enjoy the Naugatuck River watershed. Increasing fish migration up the Naugatuck River will improve the Long Island Sound's ecological diversity and fish stocks. Finally, restoring a free flowing Naugatuck River will allow for the resumption of natural flow of sediment in Long Island Sound, benefiting Connecticut's thriving shellfish industry.

If awarded, funding under this grant will ensure quick resolution of this long-standing environmental nightmare – a resolution that is consistent with Connecticut's environment goals for the Naugatuck River, the Long Island Sound, and federal policies as articulated by Fish and Wildlife Service.

We simply cannot overstate our support for this grant application and urge your favorable consideration. Thank you.

Sincerely,

RICHARD BLUMENTHAL
United States Senate

CHRISTOPHER S. MURPHY
United States Senate

JAHANA HAYES
Member of Congress

ROSA L. DELAURO
Member of Congress

JIM HIMES
Member of Congress

United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5087
https://www.fws.gov/office/new-england-ecological-services

August 11, 2022

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by the Naugatuck Valley Council of Governments for the Kinneytown Hydroelectric Project

To Whom It May Concern:

I write to express the U.S. Fish and Wildlife Service's (Service) support of the Naugatuck Valley Council of Governments' (NVCOG) application (with Save the Sound, Inc., as sub-recipient) to the National Oceanic and Atmospheric Administration (NOAA) for a grant pursuant to NOAA's Restoring Fish Passage through Barrier Removal Funding Opportunity.

The grant would fund removal of the Kinneytown Hydroelectric Project (FERC No. P-6985) in Ansonia and Seymour, Connecticut. The project, located 4 miles upstream from where the Naugatuck flows into the Housatonic River, is the lowest dam on the Naugatuck River and the first barrier from Long Island Sound. The dam, diversion canal, two powerhouses, and impoundment span over 2.7 miles of the Naugatuck River. Importantly, removal would restore unimpeded aquatic connectivity to 29.2 miles of the mainstem Naugatuck and many more miles of tributary habitat.

The Service has actively sought effective fish passage at the Kinneytown Project for years, without success. On July 14, 2022, the Service recommended that the Federal Energy Regulatory Commission (FERC) take immediate action to either resolve the outstanding fish passage compliance issues at the project or consider revocation of the project's exemption. The NVCOG's effort is consistent with the Service's priority to provide safe, effective, and timely fish passage at the site. Full barrier removal of the Kinneytown Project is the most effective and permanent method for restoring the Naugatuck River fish runs. Many of the diadromous fish in this region are in significant decline, in part, because of restricted access to spawning and rearing habitat. One such species affected by the Kinneytown Project is the American shad, designated as a "Species of Greatest Conservation Need." Removal of the Kinneytown Project, and restoring unimpeded access to many miles of habitat, will greatly benefit these at-risk species.

In summary, awarding this grant to the NVCOG would facilitate restoration of fish passage at the Kinneytown Project, a conservation goal the Service and our partners have been pursuing for years, and we strongly support the NVCOG's grant application.

Sincerely yours,

AUDREY MAYER

Digitally signed by AUDREY MAYER
Date: 2022.08.11 15:42:17 -04'00'

Audrey Mayer
Supervisor
New England Field Office

cc: Reading file
ES: KHogan/DSimmons:jd:8-11-22:603-223-2541

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square
SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

August 11, 2022

Melanie Gange
Competition Manager
NOAA Restoration Center
1315 East-West Highway (F/HC3
Silver Springs, MD 20910

Re: Restoring Fish Passage Through Barrier Removal Grants Competition – Letter of Support

Dear Ms. Gange:

I write to you today as to express EPA Region 1's strong support for the efforts of the Naugatuck Valley Council of Governments (NVCOG) and their affiliated non-profit, the Connecticut Brownfield Land Bank (CTBLB) to control, assess, remediate, remove and restore the area of the Naugatuck River occupied by the Kinneytown Hydro Project, Inc. and the Kinneytown Dam.

Both CTBLB and NVCOG are direct recipients of EPA Brownfields program funding, and NVCOG has been a highly successful grantee. Since the inception of the Brownfields program, they are among the most prolific recipients of Brownfield funds in Region I. Recently, NVCOG was awarded – and rewarded for their past success - another $3.9 million for their Brownfields Cleanup Revolving Loan Fund Program where they fund and monitor environmental remediation projects. To date, NVCOG/CTBLB has successfully managed & disbursed $11.4 million in EPA Brownfields assessment and cleanup funding,

EPA Region 1 has an extremely productive, on-going 25-year experience with NVCOG, who have always demonstrated fiscal responsibility and excellent grants management capacity in the timely and successful planning, execution, reporting and completion of their Cooperative Agreements. Working under their Executive Director Rick Dunne, the NVCOG team consistently, efficiently, and effectively carries out and oversees large-scale industrial assessment and remediation projects. Region 1 considers them both to be highly experienced and fully qualified to plan and supervise professional consultants to accomplish large-scale civil projects using federal resources.

With regard to the above-captioned grant application and the proposed activity by NVCOG and our partners, EPA Region 1 is in receipt of a request to our Targeted Brownfield Assessment (TBA) Program from NVCOG, which, if approved, would provide professional consultants working under the direction of the EPA and local partners to perform Phase I and Phase II assessments to develop all of the soil and sediment characterization required at this very large site, but primarily pertaining to the two major impoundments associated with the dams and related hazardous building materials assessments. Upon completion of sampling and laboratory analysis, a Remedial Action Plan will be developed in consultation with regulators from the Connecticut Department of Energy and Environmental Protection (CTDEEP). Following completion of this activity, NVCOG would be eligible to apply to a number of EPA programs for cleanup funds to support revitalization at this site.

I unequivocally recommend NVCOG as a productive and responsible partner for any federal agency. Please feel free to contact me at byrne.james@epa.gov or (617) 918-1389, should you have any questions.

Sincerely,

JPB

James P. Byrne
Brownfields Coordinator
USEPA Region I, New England
byrne.james@epa.gov
(617) 918-1389

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

August 12, 2022

Melanie Gange
Competition Manager
Restoring Fish Passage through Barrier Removal Grants competition
NOAA Restoration Center
1315 East-West Highway (F/HC3)
Silver Spring, MD 20910

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

Dear Ms. Gange,

I write to express the Connecticut Department of Energy and Environmental Protection's (CT DEEP) full support of the Naugatuck Valley Council of Governments' (NVCOG) application to NOAA for a grant (the "Grant") pursuant to NOAA's Restoring Fish Passage through Barrier Removal Funding Opportunity. NVCOG is a regional governmental entity and a subdivision of the State of Connecticut. NVCOG has partnered with Save the Sound, Inc. (STS) - a non-profit with important expertise in ecological restoration. STS would be a grant sub-recipient.

The Grant would fund removal of the Kinneytown Project (FERC No. P-6985) in Ansonia and Seymour, CT. The Kinneytown Project is the lowest dam on the Naugatuck River and the first barrier from Long Island Sound. The Kinneytown Project is located four miles upstream from where the Naugatuck flows into the Housatonic River. The dam, diversion canal, two powerhouses, and impoundment span over 2.7 miles of the Naugatuck River. Importantly, removal would open 29.2 miles of mainstem and many more miles of tributary habitat.

NVCOG's effort is fully consistent with CT DEEP's management goals for the Naugatuck River. On July 20, 2022, CT DEEP released its draft revised "Plan to Restore Diadromous Fishes to the Naugatuck River Watershed" that establishes dam removal as the preferred form of fish passage. CT DEEP is an active party before FERC seeking effective and unfettered fish passage at the Kinneytown Dam. On July 22, 2022, CT DEEP joined in the US Fish and Wildlife Service's July 14, 2022 recommendation that FERC initiate proceedings to revoke the Kinneytown Project's exemption to allow others interested in restoring fish passage to achieve that goal.

CT DEEP, NVCOG and STS have mutually supported effective fish passage at the Kinneytown Project for more than two years. I want to express CT DEEP's strong support for NVCOG's Grant application.

Sincerely,

Katherine S. Dykes
Commissioner, Connecticut Department of Energy and Environmental Protection

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

Marine District Headquarters

P.O. Box 280 • 333 Ferry Road • Old Lyme, CT 06371 portal.ct.gov/DEEP Affirmative Action/Equal Opportunity Employer

August 11, 2022

Melanie Gange
Competition Manager
Restoring Fish Passage through Barrier Removal Grants competition
NOAA Restoration Center
1315 East-West Highway (F/HC3)
Silver Spring, MD 20910

Ms. Gange,

I am pleased to write this letter fully supportive of the grant application to design and remove the Kinneytown Dam on the Naugatuck River in Seymour Connecticut.

Professionally, as a diadromous fisheries biologist working for the State of Connecticut Department of Energy and Environmental Protections Fisheries Division, I have spent countless hours over the past two decades attempting to restore diadromous fishes to the Naugatuck River. This ongoing effort includes transportation and release of pre-spawn American Shad, Alewife, and Sea Lamprey (native to the Naugatuck River) to sites within the Naugatuck River Watershed; all of which are located upstream of the Kinneytown Dam. During this time, I also have been in charge of monitoring fish passage through the Kinneytown Dam Fishway and therefore I have an unparalleled understanding of the limited number and diversity of species ascending the Naugatuck River through this fishway.

Recently, as the primary author of the updated Plan to Restore Diadromous Fishes to the Naugatuck River Watershed, I established diadromous fish restoration goals for the river. Success in attaining these goals relies on several conditions; the most critical of these is the safe, timely, and effective upstream and downstream passage of fish throughout the geographic extent of the watershed targeted by the plan.

I have been in consultation with the project partners regarding fisheries issues and benefits of the project, including consultation regarding the lack of need for invasive fish species management.

Given my knowledge of the number of diadromous fishes the Naugatuck River Watershed is capable of producing and the realities of the limited number of these fish successfully ascending the Kinneytown Fishway, it is my professional opinion that the Kinneytown Dam is the largest factor preventing the restoration of diadromous fishes to the watershed, and its removal is the only pragmatic action that can assure safe, timely, and effective fish passage at this site and achieve our shared goal of diadromous fish restoration in the watershed.

Sincerely,

Timothy L. Wildman
Senior Fisheries Biologist
Diadromous Fish Restoration Program
Fisheries Division

CONNECTICUT BROWNFIELD LAND BANK
49 LEAVENWORTH STREET (3RD FLOOR)
WATERBURY, CT 06702

August 8, 2022

Melanie Gange, Competition Manager
Restoring Fish Passage through Barrier Removal Grants competition
NOAA Restoration Center
1315 East-West Highway (F/HC3)
Silver Spring, MD 20910

To whom it may concern:

The Connecticut Brownfield Land Bank (BLB) strongly supports the Naugatuck Valley Council of Governments' application to NOAA for "Restoring Fish Passage through Barrier Removal." The BLB takes possession of contaminated properties during assessment and remedial activities to shield parties from liability and to offer technical assistance. We look forward to providing these services for this ecologically and culturally important project.

We are aware that there is a large amount of likely contaminated material that has accumulated behind the dam and in Coe Pond, which will need to be assessed and remediated. The BLB will hold the property's title while this work is being accomplished and may assist with other aspects, such as engineering review and consultant selection.

The BLB's mission is to empower governments to revitalize communities through transforming blighted properties. The removal of Kinneytown, once part of the regional brass industry, will open dozens of miles of aquatic habitat while furnishing the nearby Environmental Justice communities of Ansonia, Derby, and Waterbury with co-benefits including increased property values, access to recreation, and increased resilience against climate change.

The BLB Board of Directors was briefed on the Kinneytown project at the July 14, 2022 meeting and expressed enthusiasm at participating in this worthy effort. The Board of Directors is prepared to accept title and possession subject to the current negotiations and formal vote of the Board once the term sheet is completed. We plan to hold the property throughout the duration of the project and provide for deed restrictions before transfer of the parcel to local municipalities or another third party.

We look forward to working with the Naugatuck Valley Council of Governments and Save the Sound, and strongly encourage you to approve their funding request.

Regards,

Rick Dunne, President
Connecticut Brownfield Land Bank

Naugatuck River Revival Group

132 Radnor Avenue
Naugatuck, CT 06770

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

August 9, 2022

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

To Whom It May Concern,

I am President of the Naugatuck River Revival Group, Inc. (NRRG). I am writing to express NRRGs strong support for NOAA funding to help restore the Naugatuck River.

The Naugatuck, like so many northeastern rivers, was harnessed for industry, with waterpower generated from a series of nine dams driving brass and other factories that in the 19th Century brought economic prosperity to the valley. But by the mid-1900s, manufacturing activity faded, leaving the dams behind, along with a legacy of terrible pollution. Little attention was paid to the ecology of the forgotten river until locals from several underserved communities within the Naugatuck River Valley united to form the NRRG, dedicated to making the river safe for recreation and to restoring the once-abundant native fish populations and wildlife. Our work encompasses everything from hauling tires and shopping carts off the river bottom to advocating for all forms of restoration, including dam removals.

The NRRG is especially proud of the success it has had in bringing a broad array of Naugatuck Valley political leaders and residents back to the river, reconnecting people with the history, current condition, and the potential of the river. Residents of the Valley -- who come from a broad range of economic and racial backgrounds -- are now engaged and active users of the river, safely enjoying swimming, fishing and boating year-round.

As part of NRRG restoration work, two years ago NRRG joined forces in coalition with the Naugatuck Valley Council of Governments (NVCOG) and Save the Sound, Inc. (STS) to address the hugely damaging ecological impacts of the Kinneytown Dam. All eight of the other dams on the Naugatuck already have been removed or bypassed. Importantly, all of these former dams were upstream of Kinneytown Dam, recreating nearly 30 miles of free-flowing river (plus tributaries), yet with true connectivity to the downstream Housatonic and Long Island Sound blocked by Kinneytown. While NRRG over the last 10+ years has taken the lead in documenting the devastating ecological impacts from the Kinneytown Dam and in alerting political leaders, the public, and natural resource agency personnel to these impacts, NRRG is delighted that NVCOG and STS are now taking the lead in the actual dam removal effort, given their much larger size and capacity.

The NRRG is asking for NOAA's full support toward the decommissioning of the single remaining dam, at Kinneytown, and for its removal.

Respectfully,

Kevin Zak
President, NRRG & Supervisor, Waterbury PAL River Brigade
Https://naugatuckriver.com; Facebook: naugatuckriverrevivalgroup

Melanie Gange
Competition Manager
Restoring Fish Passage through Barrier Removal Grants competition
NOAA Restoration Center
1315 East-West Highway (F/HC3)
Silver Spring, MD 20910

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

To Whom It May Concern,

We the members of the Long Island Sound River Restoration Network (RRN) support the Naugatuck Valley Council of Governments and their nineteen towns who have shown unanimous support for removing the non-functioning Kinneytown Dam as a barrier to fish passage on the Naugatuck River. Our organizations represent the leading NGO practitioners of barrier removal in the greater Long Island Sound Watershed. As members of the RRN, we affirm our wholehearted support for the removal of Kinneytown Dam on the Naugatuck River as the leading priority removal ready for action within the Long Island Sound watershed in NY and CT.

This proposal will open up almost 30 miles of mainstem river to river herring, American Shad, American eel and sea lamprey and an additional 63.5 miles of tributary spawning and rearing habitat within the Naugatuck's tributaries. This is an incredibly significant reopening of a river system that drains into the central Sound. Restored fish run projections provided by the CT DEEP Fisheries Division estimate a potential run of 21,000 American Shad and 141,000 river herring could become re-stablished in this newly accessible habitat.

We are pleased to support this effort by the Naugatuck Valley COG and their partners in restoring the Naugatuck River by removing Kinneytown Dam, and stand ready as members of the RRN to support the project team throughout the process ahead.

Sincerely,

Mike Jastremski
Watershed Conservation Director
Housatonic Valley Association

Amy Singler
River Restoration Director
American Rivers

Ron Rhodes
Director of Restoration Programs
CT River Conservancy

Laura Wildman
Regional Director of Ecological Restoration
Save the Sound

Tracy Brown
NY/CT Restoration Manager
Trout Unlimited

Aimee Petras
Executive Director
Farmington River Watershed Association

Save the Sound®
Action for our region's environment.

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

August 12, 2022

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

To Whom It May Concern,

As leaders in regional conservation and interest in forage fish management and conservation, we strongly support this application from the Naugatuck Valley Council of Governments, and the nineteen towns they represent, to remove the non-functioning Kinneytown Dam as a barrier to fish passage on the Naugatuck River. Our organizations represent research, public education, management and policy practitioners dedicated to achieving the conservation goals for fish and wildlife in the greater Long Island Sound Watershed.

This proposal will open up 29.2 miles of mainstem habitat to river herring and American shad spawning and increase additional access to 28.3 miles of tributary habitat for American eels and sea lamprey for a total of 57.5 miles of free running river above the Kinneytown project. This is a regionally significant reopening of a river system that ultimately drains into the central Sound whose access has been cut off since 1844. The watershed contains 21 *Justice 40* tracts and 72 *NVCOG EJ Block Groups* highlighting the post-industrial economy. Fully-restored fish run projections provided by the CTDEEP Fisheries Division estimate a potential run of 21,000 American Shad and 141,000 river herring could become re-established in the Naugatuck River with full access. Removing Kinneytown dam will access potential habitat that could produce 81% of the restored run goal for river herring and 97% for American shad, when combined with the open habitat below the Kinneytown to the confluence of the Housatonic River. We are pleased to support the Naugatuck Valley COG which will contribute to the success of all our missions.

CTNERR

Dr. George McManus
Professor of Marine Sciences – University of Connecticut
Interim Director, **Connecticut National Estuarine Research Reserve**

MYSTIC AQUARIUM

Dr. Peter Auster
Senior Research Scientist - Mystic Aquarium

Audubon | CONNECTICUT

Robert LaFrance, Esq.
Director of Policy & Member of the ASMFC Habitat Committee

Save the Sound SOUNDKEEPER

Bill Lucey, B.S., Grad. Cert.
Long island Soundkeeper/Fisheries Biologist – Save the Sound, Inc.

On behalf of the forage fish group:

CITIZENS ADVISORY COMMITTEE

OF THE LONG ISLAND SOUND STUDY

Website: http://www.longislandsoundstudy.net

August 12, 2022

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

To Whom It May Concern:

On behalf of the membership of the Long Island Sound Study (LISS) Citizens Advisory Committee (CAC), we support regional conservation efforts to reopen habitat for migratory fish. The CAC is a bi-state organization made up of municipalities, nonprofit organizations, businesses and residents focused the health of the estuary. The proposal from the Naugatuck Valley Council of Governments and the nineteen towns they represent to remove the Kinneytown Dam on the Naugatuck River will advance the wildlife and habitat goals of the Long Island Sound Study National Estuary Program Comprehensive Conservation and Management Plan.

Removing barriers to fish passage and restoring stream habitat helps regain the historic balance of natural habitats and healthy functions of the ecosystem. This proposal to reconnect 57.5 miles of free running river habitat to Long Island Sound will provide spawning grounds to river herring and American shad and increase access to tributary habitat for American eels and sea lamprey for the first time since 1844. Projections provided by the CTDEEP Fisheries Division estimate a potential run of 21,000 American Shad and 141,000 river herring could become re-stablished in the Naugatuck River with full access. Removing Kinneytown dam represents the opportunity to support 81% of the run goal for river herring and 97% for American shad.

The CAC is pleased to support efforts of the Naugatuck Valley Council of Government their partners in restoring the Naugatuck River and the watershed of Long Island Sound.

Sincerely,

Nancy Seligson
CAC Co-chair, NY

Holly Drinkuth LISS
LISS CAC Co-chair, CT

The Long Island Sound Study is a cooperative Federal/state Management Conference researching and addressing the priority environmental problems of the Sound identified in the Comprehensive Conservation and Management Plan. The Citizen's Advisory Committee provides advice on policy, management, restoration, and public education activities to the Management Committee in implementing the CCMP.

Police Activity League of Waterbury, Inc.
64 Division Street
Waterbury, Connecticut 06704
www.waterburypal.org
Phone: 1-203-346-3921 Fax: 1-203-574-2832

August 11, 2022

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments for the Kinneytown Project

To Whom It May Concern,

I am writing to express Waterbury PAL's strong support for the River Brigade and NOAA funding to help restore the Naugatuck River. The Police Activity League of Waterbury, Inc. has been supervising the River Brigade since 2018 for 6-8 weeks over each summer. Our River Brigade employed approximately 75 youth from the Waterbury and Naugatuck Community with a main goal of removing all trash and debris from the river bottom and its banks. The Naugatuck River has become a 40 mile classroom for this PAL program as many of these high school and college students were scarcely aware of the rivers existence.

Kevin Zak, the supervisor for River Brigade, has been very dedicated to their mission and is committed to further the education of our community of the river. Throughout this time, the River Brigade scouted and explored hard to reach areas to clean. They have cleaned heavy and light trash while also have removed well over 1,000 tires. They have removed many tons of old industrial steel from neglect and the devastating 1955 flood waters.

This group has worked in parallel with the Naugatuck River Revival Group. They have toured the extensive reservoir system that supplies the City of Waterbury with drinking water and have toured the City of Waterbury Waste Water Treatment plant. The River Brigade has been the focus of countless radio, TV and print news stories.

The River Brigade has assisted CT-DEEP stock 1,200 of Alewife (and planned stocking of American Shad and Blueback Herring) into the Naugatuck River. They have learned about failed fish passage at Kinneytown and witnessed firsthand trapped and dying fish at the spillway. The River Brigade also has explored and cleaned above and below the Kinneytown Dam. They have indoor classroom study sessions about the Naugatuck River, dams in general and Kinneytown.

With our support, we believe that the River Brigade will continue to provide a positive future for our community by means of cleaning the Naugatuck River, preserving the wildlife and fish within the river, and also educating our community in conserving our river long term.

Sincerely,

Fernando Spagnolo, President
Police Activity League of Waterbury, Inc.

NATEL ENERGY

2401 Monarch Street
Alameda, CA 94501
https://natelenergy.com

August 10, 2022

National Oceanic and Atmospheric Administration
1401 Constitution Avenue NW, Room 5128
Washington, DC 20230

RE: NOAA-NMFS-HCPO-2022-2007209, Application by Naugatuck Valley Council of Governments

To Whom It May Concern,

I write as the Chief Executive Officer of Natel Energy, Inc. ("Natel"). Natel explored a potential partnership with Kinneytown Hydro Company, Inc. and its parent company, Hydroland, Inc., with regard to the Kinneytown Hydroelectric Project (Federal Energy Regulatory Commission (FERC) Project No. 6985). This potential partnership was referenced in Hydroland, Inc.'s March 14, 2022, May 12, 2022, and May 31, 2022 filings at FERC.

In assessing a potential partnership, Natel evaluated alternative solutions for Fish Passage improvement at the Kinneytown Project site. From this evaluation, Natel concluded that given site-specific constraints and the strong interest of the local community in restoration of the Naugatuck River fish runs, construction of new fish passage facilities would likely not ensure accomplishment of the State of Connecticut's and U.S. Fish & Wildlife Service's fish passage targets for species' restoration. Natel therefore determined that full barrier removal was the likely best alternative at this site for restoration of the Naugatuck River fish runs in line with the local community's interests.

For these reasons, Natel strongly supports the Naugatuck Valley Council of Governments (NVCOG) application for a grant pursuant to NOAA's Restoring Fish Passage through Barrier Removal Funding Opportunity, NOAA-NMFS-HCPO-2022-2007209, with Save the Sound as sub-recipient. In the event that there is any change of ownership, wherein Natel may become the owner of the Kinneytown Project, Natel will provide NVCOG and Save the Sound with full access, permissions, and other support for the fulfillment of this grant and will facilitate the transfer of ownership of the facility to the Connecticut Brownfield Land Bank, or another entity designated by NVCOG, in accordance with the agreements that NVCOG and Save the Sound establish with Hydroland, Inc.

Thank you for your consideration of this letter of support.

Sincerely,

Gia Schneider
CEO
Natel Energy, Inc.

NOAA-NMFS-HCPO-2022-2007209 Data Management Plan

This document will serve as the Data Management Plan for "It's About Dam Time: Removing Kinneytown Dam to Restore Fish Passage and Advance Environmental Justice" (NOAA-NMFS-HCPO-2022-2007209), implemented by the Naugatuck Valley Council of Governments (NVCOG) and its partners, including Save the Sound (STS) and the Connecticut Department of Energy and Environmental Protection (DEEP).

As part of this project, the following types of data will be collected and processed: existing data, utility data, locations of any listed species, wetland delineation, topographic survey, bathymetric survey, sediment depth, sediment samples, depth to the underlying riverbed and bedrock depth, powerhouse contaminant assessment, water quality data, and fish data. See details below.

Existing data: Existing data will be gathered from the state, municipalities, engineering firms that completed the previous studies, FEMA, and online resources. Data will be recorded as it comes in and reviewed for accuracy and appropriateness of use. Datums will be determined and converted as needed. Metadata will be collected as part of this collection of available data.

Utility data: Utility data will be collected from the local municipalities' Office of Public Works. Data will be recorded as it comes in and reviewed for accuracy and appropriateness of use. Datums will be determined and converted as needed. Metadata will be collected as part of this collection of available data, if available.

Locations of any listed species: Locations of any listed species downstream, anticipated to include blueback herring and bald eagle, will be collected from the CT DEEP Natural Diversity Database, such that appropriate measures can be taken to minimize any impacts to these species during construction. It is anticipated that this project will benefit both species. A formal letter of request will be made and filed.

Wetland delineation: Regulated wetland resources, both state and federal, will be delineated by a Connecticut-certified soil/wetland scientist. Quality control is maintained by utilizing a Connecticut-certified soil/wetland scientist.

Topographic survey: Topographic data will be collected by a professional Connecticut licensed surveyor. Quality control is maintained by utilizing a professional Connecticut licensed surveyor, in addition, surveys will be reviewed by a Connecticut licensed Professional Engineer that is supervising the project.

Bathymetric survey: Bathymetric data will be collected by a professional Connecticut licensed surveyor. Quality control is maintained by utilizing a professional Connecticut licensed surveyor, in addition, surveys will be reviewed by a Connecticut licensed Professional Engineer that is supervising the project.

Sediment depth: Impounded sediment depths will be determined using probes conducted with extendable tile rods. Quality control will be maintained by cross-referencing the results from this data with the results from the mechanical borings and ground penetrating radar.

Sediment samples: Full vertical core sediment samples will be collected with mechanical borings from a barge-mounted rig or utilizing a tripod-mounted hammer with a coring auger. Quality control will be maintained by providing professional oversight during the collection of the sediment samples.

Depth to underlying riverbed and bedrock: Depth to underlying riverbed and/or bedrock will be confirmed with ground penetrating radar. Quality control will be maintained by cross-referencing the results from this data with the results from the mechanical borings and sediment probing.

Powerhouse contaminant assessment: The Powerhouse will be assessed by a certified professional to determine if any contaminants are present, such as asbestos and lead.

Water quality data: Water quality datasets will include systematic Total Suspended Solids and temperature logs above and below the dam.

Fish data: Fisheries datasets will include fish use of the existing ladder, designed for river herring jump rates of 6" by videography managed by DEEP Fisheries. Fish data will be compiled by CTDEEP and shared with STS. Water quality data will be collected by the STS fishery biologist and analyzed the STS water quality lab. Both data sets will be compiled into an annual self-monitoring report.

Both the EPA and NOAA guidance will be drawn upon to develop our protocols for gathering data. Data will be stored on a server and backed up on a hard drive.

The data will be stored on the NVCOG Restoration Project webpage (https://nvcogct.gov/project/current-projects/kinneytown-dam-fish-passage/) and the STS Kinneytown webpage (https://www.savethesound.org/what-we-do/ecological-restoration/restoration-project-gallery/kinneytown-dam-hydroland/). The data will become available once appropriate quality control protocols have been completed, no later than two years after the data has been collected. We anticipate data to be available beginning December 1, 2024, and will remain available to the public at these websites annually until the dam is removed and remain on the website thereafter. In the past, STS has shared similar water quality data that you can find at their website.

Contact Jon Vander Werff (lead biologist for the project) at (914) 584-4698 or (Jon Vander Werff <jvanderwerff@savethesound.org>) for more information or to make a data request outside of what is provided on the webpage. All future sub-awardees not identified in this plan will have as a condition of their contract acceptance of this data sharing plan. Any additional data sharing stipulations for future sub-awardees may be outlined at that time and described in their contract.

This Data Management Plan has been crafted based on guidance from the "NOAA Restoration Center Implementation Monitoring: Guidance for Proposing and Conducting Tier 1 Monitoring" document, available here.

ORGANIZATION INFORMATION	
Entity Name	Save The Sound, formerly The Connecticut Fund for the Environment
Entity Type	Private Non-Profit Organization
EIN	06-0990195
Phone Number	(203) 787-0646
Mailing Address	900 Chapel St, Suite 2202, New Haven, CT 06510
Web Address	www.savethesound.org
Focus of Work	Protecting and Improving the Land, Air, and Water in Connecticut and Long Island Sound.

	PROPOSAL POINT OF	CONTACT INFORMATION
Names	Janel Crite	Jennifer Rowe
Position Titles	CFAO	Compliance Consultant
Email Addresses	jcrite@savethesound.org	jennifer@instaterallc.com
Phone Numbers	(203) 787-0646 x120	(720) 549-3291

	RATE(S) INFORMATION INCLUDED IN THIS PACKAGE
Requested Rates(s)	Indirect Cost Rates: 2020 – 16.35% 2021 – 22.66%
Requested Rate(s) Type	Fixed with Carryforward
Distribution Base(s)	Modified Total Direct Costs with Subs over $25k removed
Requested Year(s)	2020-2021
Proposal is Based on	actuals

	RATE(S) RELATED OTHER INFORMATION
Negotiation History	We have negotiated rates with the U.S. Department of the Interior
Fiscal Year Inclusive Dates	10/01 – 9/30
Rate Development Method	Simplified Allocation
Fringe Benefits Treatment	Fringe is applied to direct/indirect in the same proportion as the labor costs.
PTO Treatment	PTO is applied to direct/indirect in the same proportion as the labor costs.
Federal Fund Types Received	Grants and Cooperative Agreements (Falls Under 2 CFR 200)
Basis of Accounting	Accrual Basis
Supplementary Information Included with the Package	Audited FInancial Statements only

Project Design

Engineering Design Description:

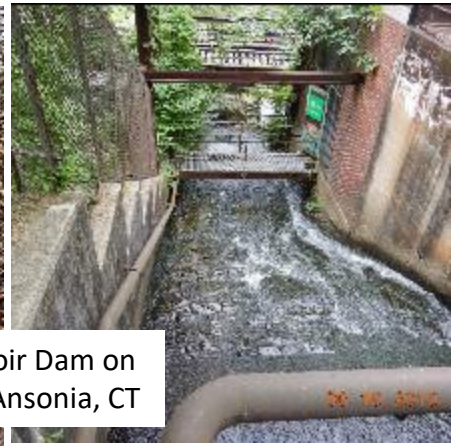
The Conceptual Design Plans attached below include the full removal of the Kinneytown Dam, the first barrier upstream of the Long Island Sound, and the removal of the associated Canal Reservoir Dam at Unit 2 in Ansonia. Floods have twice wiped out the Kinneytown Dam, once in 1910 and again in 1955, and the dam was twice rebuilt (see original dam design plans and 1957 As-Builts attached below, along with repair plans from 1980 and 1984). CTDEEP, USFWS, and the dam owner have already identified complete removal of the dam as the most feasible and effective solution to restore the Naugatuck River while reducing the numerous liabilities and safety issues relating to the aging dam infrastructure. Sediment quantity, quality, and physical characteristic data exist from the dams that were previously removed upstream, along with engineering reports, hydrologic and hydraulic models of the entire Naugatuck River, and extensive archeological and historic analysis of the Naugatuck River dams. Additional existing data includes 1-foot contour mapping from 2016; video records of the fish reaching the base of the dam; eDNA data collected downstream of the dam to identify the species of fish present; as-built engineering plans of the two sewer siphons that will need to be relocated during dam removal (see attached below); CTDEEP dam safety records stating that the dam is classified as a Significant Hazard Dam in need of repair; and a Plan to Restore Diadromous Fishes to the Naugatuck River that has just been updated and presented by CTDEEP. The Diadromous Fish Plan recommends the removal of the Kinneytown Dam as the preferred option to restore historic fish runs to the Naugatuck River.

The project team has developed a Conceptual Plan for Dam Removal, and budgets for the Engineering, Permitting, Bid Assistance, and Construction Administration. In addition, we have worked with a contractor experienced in large-scale dam removal projects in the northeast to develop the initial estimate of cost for the demolition of the Kinneytown Dam and the restoration of the Naugatuck River. The preferred sediment management method for dam removal still needs to be agreed upon by the regulatory agencies, but at this time we are assuming that the sediment can be managed by hydraulically dredging and relocating on-site a portion of the sediment while allowing the remaining sediment to be passively transported downstream to enrich the riverine wetlands and estuary downstream. We have prepared estimates of probable cost for two hydraulic dredge options (see Construction Cost attached below). The first lower-cost option would focus on hydraulically dredging the top four feet of sediment from the wetted impoundment (49ac), which is where the majority of exceedances existed for the 5 mainstem dams removed between 1999 and 2004. The second higher-cost option would hydraulically dredge the potentially mobile portion of the impounded sediment. The hydraulically dredged spoils would be sluiced down the existing canal that parallels the river's eastern bank into the Coe Pond and stabilized and capped. The Canal Reservoir Dam, which currently impounds Coe Pond, will also be removed and transformed into a cascade or waterfall feature paralleled by pedestrian access extending under the existing railroad bridge in this area. The tributary extending into Coe Pond will be restored on the newly graded surface of the former impoundment and the former Coe Pond site will then be revitalized as part of the existing Naugatuck River Greenway plans. This will allow for the reconnection of the adjacent underserved community to the Naugatuck River, which is currently blocked from river access by a large chain-link fence that will be removed. The project will also investigate opportunities to replace the current energy produced by the hydroelectric facility with solar energy. A Timeline for this work, with key milestones, is attached below.

Contents:

Conceptual Dam Removal Plans for Kinneytown Dam

Kinneytown Dam on the Naugatuck River in Seymour, CT



Canal Reservoir Dam on Coe Pond in Ansonia, CT

D/S Sewer siphon x-ings to be resize to accommodate flows from 2 U/S siphon relocations

Wastewater Treatment Plant

Powerhouse & Ex. Fishway

Coe Pond

Canal to Coe Pond to be filled and restored with a greenway

Route 8

Extent of impounded sediment to be hydraulically dredged

Canal Reservoir Dam (aka Ansonia Unit 2) to be removed and cascade or waterfall feature to be constructed

Kinneytown Dam to be removed

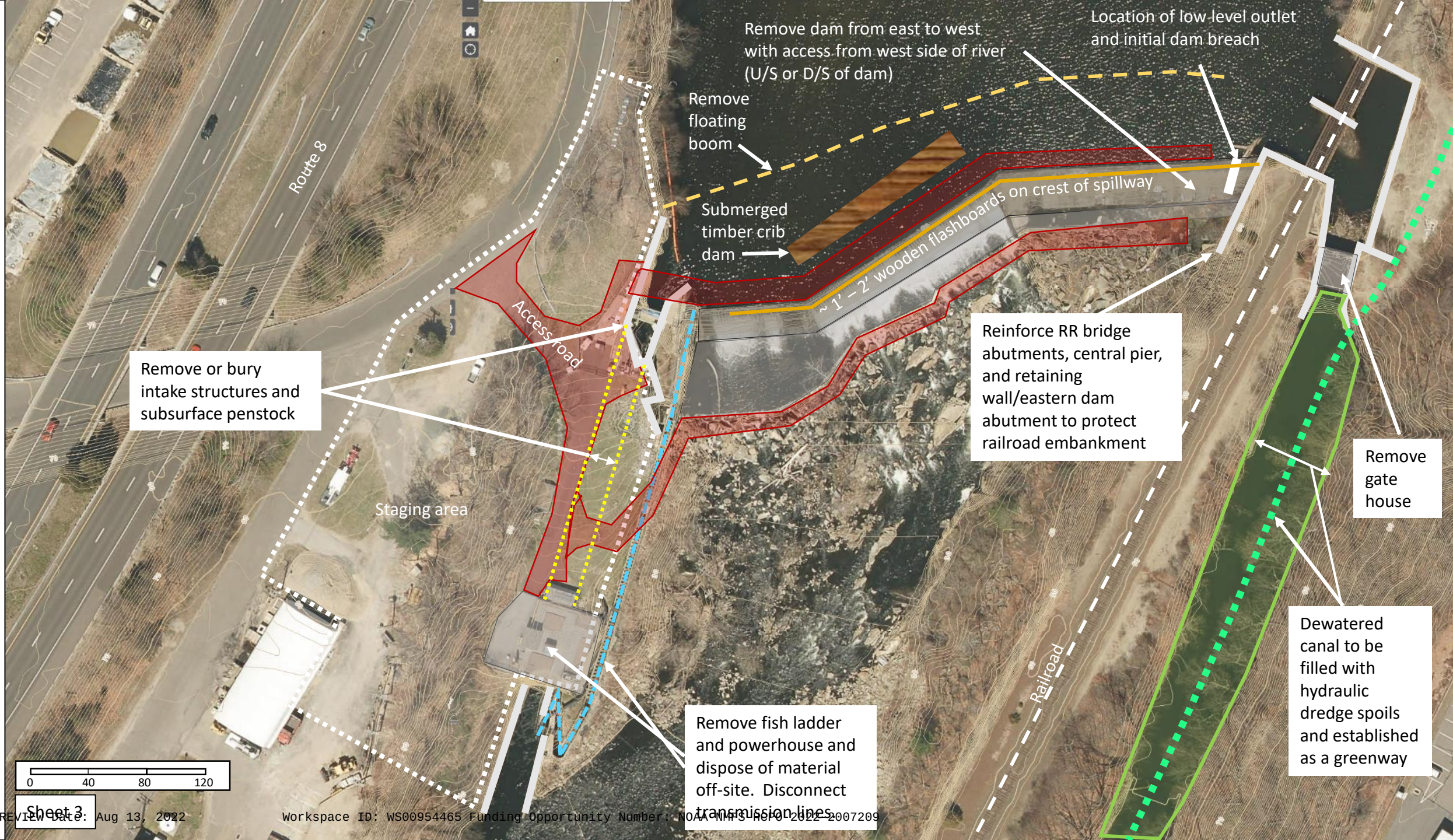
Sewer siphon x-ings to be relocated

Railroad

Listed EJ Community

Sheet 2

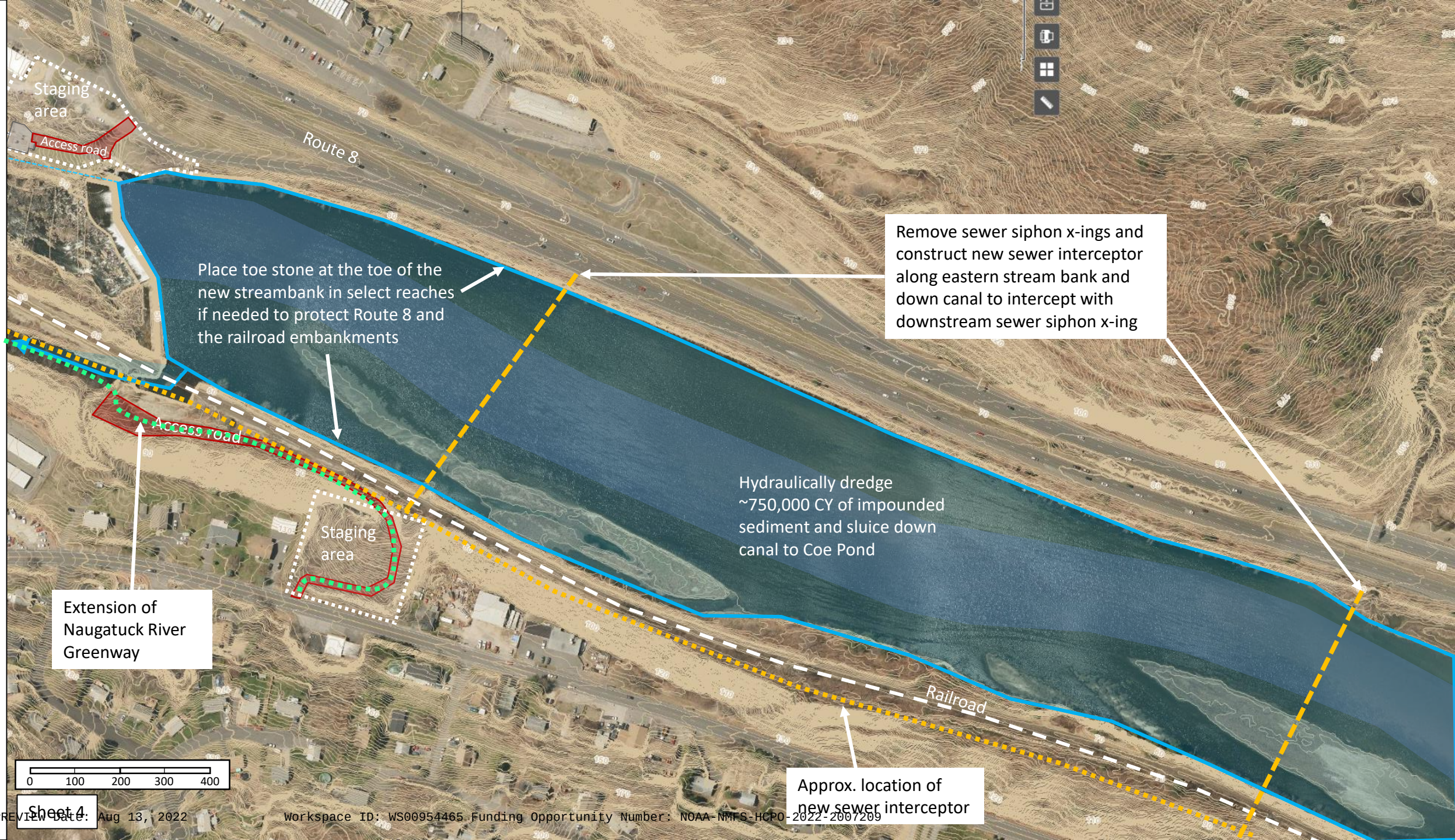
Conceptual Dam Removal Plans for Kinneytown Dam



Sheet 3

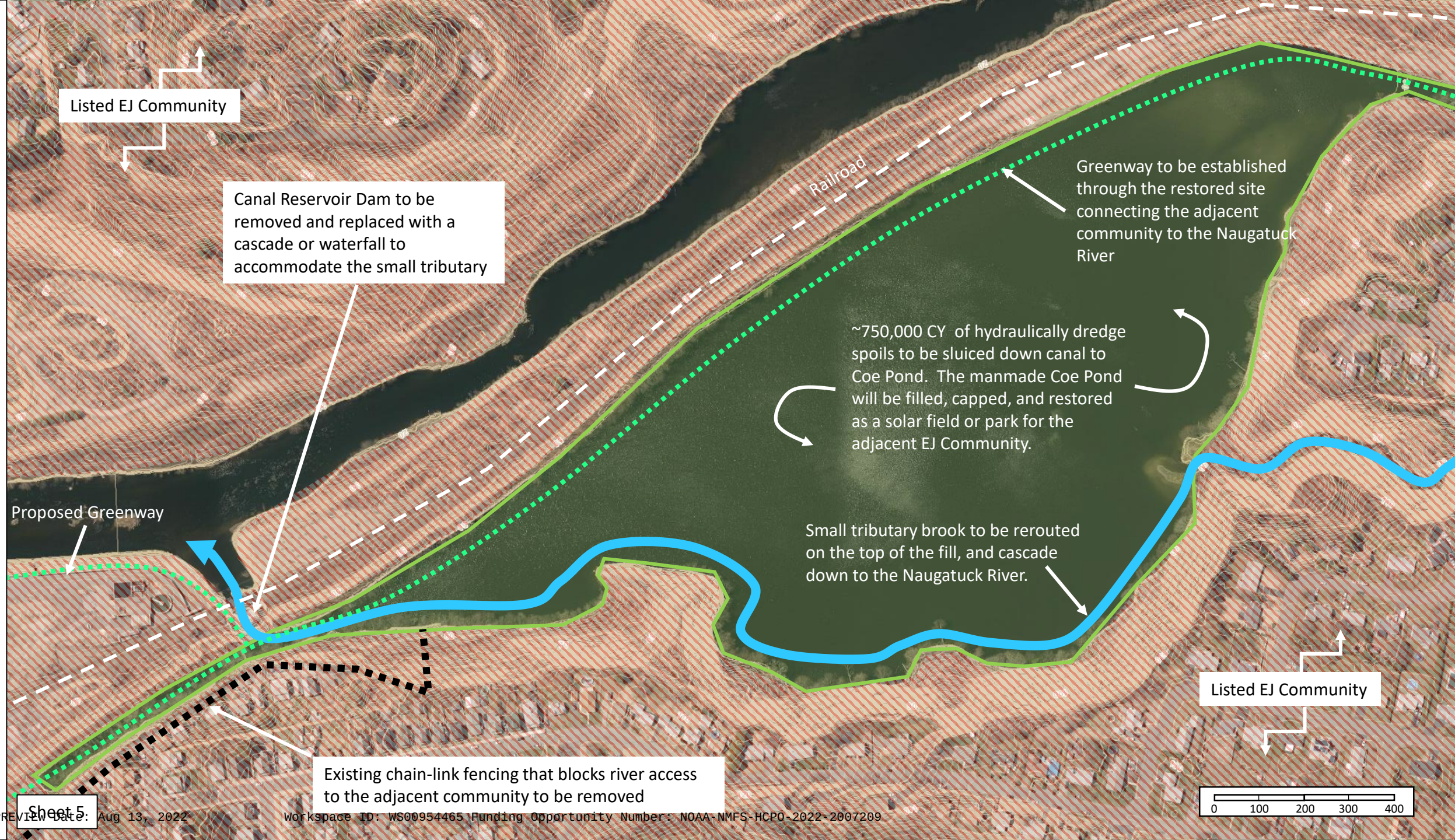
PREVIEW Date: Aug 13, 2022 Workspace ID: WS00954465 Funding Opportunity Number: NOAA-NMFS-HCPO-2022-2007209

Conceptual Dam Removal Plans for Kinneytown Dam



Sheet 4

Conceptual Dam Removal Plans for Kinneytown Dam

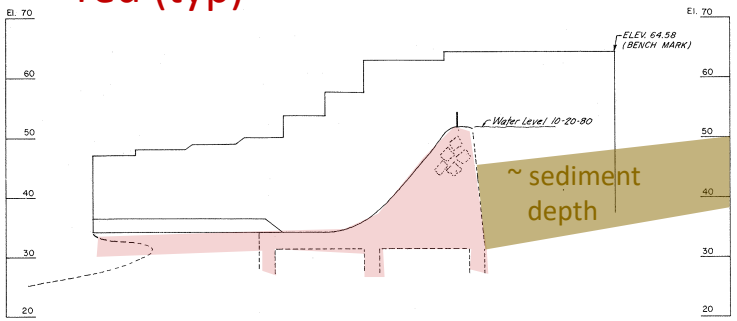


Sheet 5

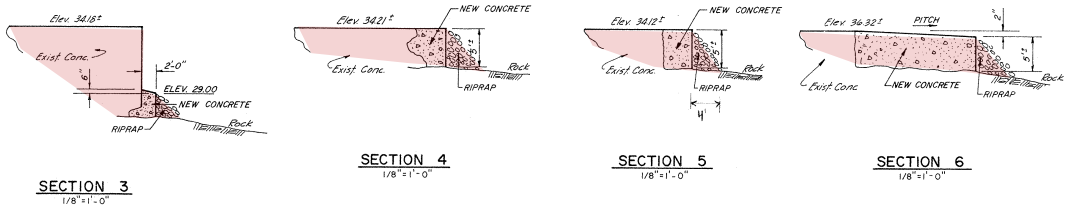
PREVIEW Date: Aug 13, 2022 Workspace ID: WS00954465 Funding Opportunity Number: NOAA-NMFS-HCPO-2022-2007209

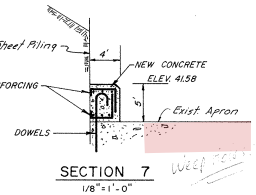
Conceptual Dam Removal Plans for Kinneytown Dam

Note: Remove all dam concrete highlighted in red (typ)



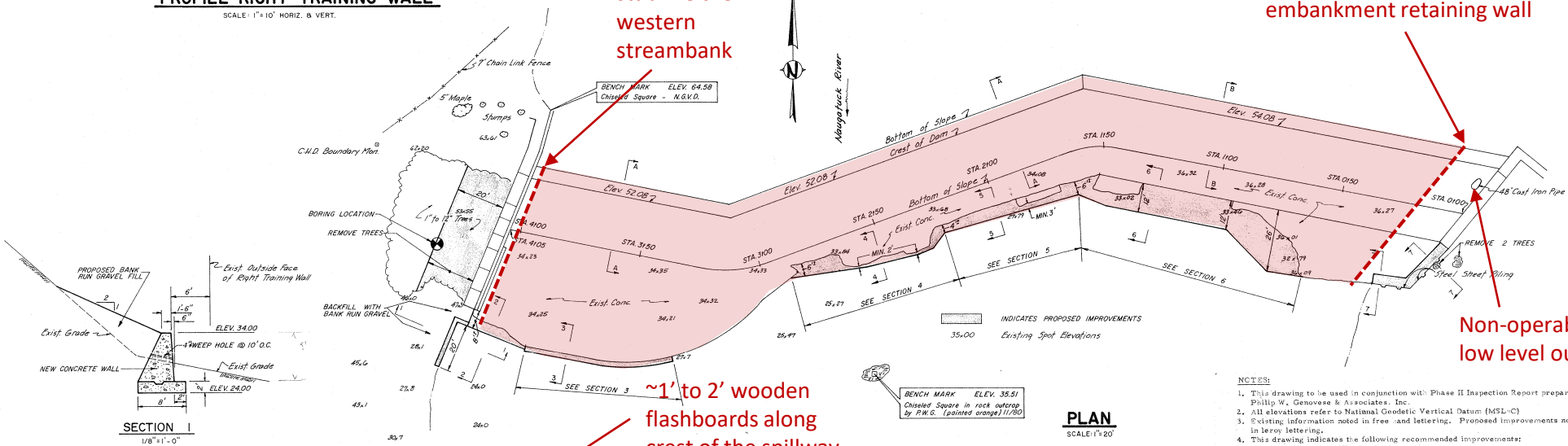
PROFILE RIGHT TRAINING WALL
SCALE: 1"= 10' HORIZ. & VERT.





Saw cut away from western dam abutment if needed to stabilize the western streambank

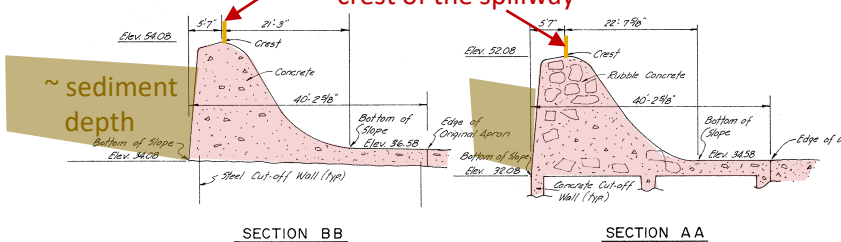
Saw cut away from eastern dam abutment and RR embankment retaining wall



PLAN
SCALE: 1"=20'

~1' to 2' wooden flashboards along crest of the spillway

Non-operable low level outlet



NOTES:
1. This drawing to be used in conjunction with Phase II Inspection Report prepared by Philip W. Genovese & Associates, Inc.
2. All elevations refer to National Geodetic Vertical Datum (MSL=C)
3. Existing information noted in free hand lettering. Proposed improvements noted in leroy lettering.
4. This drawing indicates the following recommended improvements:
   a. Retaining wall-right bank
   b. Sheet Piling - Concrete wall
   c. Apron edge
   d. Removal of trees
5. Dam/Spillway and apron surface improvements are noted in Report.

Indicates boring location. See report for boring log.

APPROVED
STATE OF CONNECTICUT
DEPT. OF ENVIRONMENTAL PROTECTION
BY ORDER DATED 7/21/81

OFFICE COPY
DEC 31 1980
PRELIMINARY

Note: Sections AA and BB are prepared using the American Brass Company drawings 6515-3, 6515-36, 6515-37 and 6515-38. Other information is based on Philip W. Genovese and Associates, Inc. survey dated November, 1980

KINNEYTOWN DAM (PRELIMINARY) RECOMMENDED IMPROVEMENTS	Drawn By: FMS
THE ANACONDA INDUSTRIES BRASS DIVISION ANSONIA, CONNECTICUT	Designed By: PGP / FMS
	Approved By: PGP
	Date: DEC., 1980
	Project No. 803200
PHILIP W GENOVESE and ASSOCIATES, INC. CONSULTING and DESIGN ENGINEERS HAMDEN, CONNECTICUT	Drawing No. KD-1

CT Dam Inv. #12405 – SEYMOUR

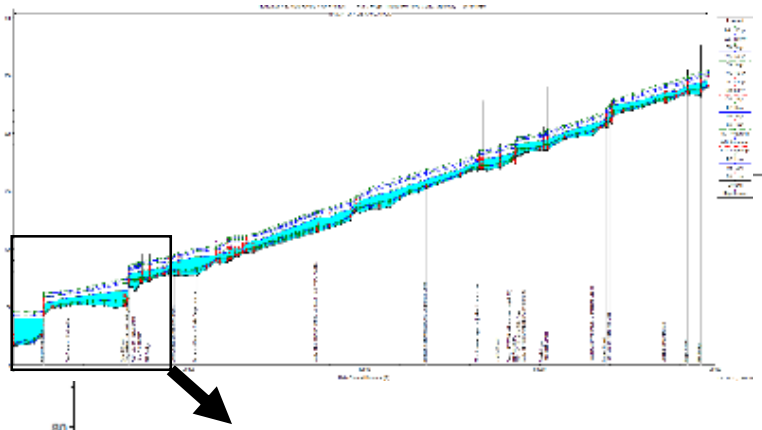
Sheet 6

PREVIEW Date: Aug 13, 2022 Workspace ID: WS00954465 Funding Opportunity Number: NOAA NMFS HCPO 2022 2007200

1980 base plan

Conceptual Dam Removal Plans for Kinneytown Dam

Naugatuck River HEC-RAS Water Surface Profile



PREVIEW Date: Aug 13, 2022 Workspace ID: WS00954465 Funding Opportunity Number: NOAA-NMFS-HCPO-2022-2007209

Project Name: Kinneytown Dam Removal Engineering & Permitting - Engineering Consulting Firm (TBD)
River Name: Naugatuck River
Location: Seymour, CT

Project Fee Estimate for Engineering & Permitting

NO.	TASK NAME	CLASSIFICATION / RATES 2022	CAD $ 120	GIS $ 120	SCI/LA $ 135	Eng $ 135	Sr. SCI/LA $ 150	Sr.Eng $ 165	PM $ 175	Sr. PM $ 220	Principal $ 260	TOTAL HOURS	TOTAL LABOR FEE	%	REIMB COST	SUB FEE	% MARK-UP	TOTAL SUB FEE	TOTAL SUBTASK FEE
1	**Engineering Project Management/Coordination**																		
1.01	Project Management/Coordination				4	4	4	40	40	4	4	100	$ 17,196				20%	$ -	$ 17,196
1.02	Project Meetings (10)						20	40	40			100	$ 16,596				20%		$ 16,596
1.03	Regular Update Meetings/Calls							40	40			80	$ 13,596				20%		$ 13,596
	TASK 1: TOTAL HOURS		0	0	4	4	24	120	120	4	4	280	$ 47,388		$ -	$ -		$ -	$ 47,388
	LABOR FEE		$ -	$ -	$ 540	$ 540	$ 3,600	$ 19,776	$ 21,012	$ 880	$ 1,040								
2	**Data Collection/Field Work**																		
2.01	Collection & Review of Existing Data				8	8	4	8	4	2		34	$ 5,219				20%	$ -	$ 5,219
2.02	Monitoring Plan				8		16		2			26	$ 3,830				20%	$ -	$ 3,830
2.03	QAPP				60		60		30	12		162	$ 24,993				20%	$ -	$ 24,993
2.04	Delineation				24		60			8		92	$ 14,000				20%	$ -	$ 14,000
2.05	Utilities Investigation					24			4			28	$ 3,940				20%	$ -	$ 3,940
2.06	Property Boundaries		2						4			6	$ 940			$ 5,000	20%	$ 6,000	$ 6,940
2.07	Topographic Survey		8						4			12	$ 1,660			$ 30,000	20%	$ 36,000	$ 37,660
2.08	Bathymetric Survey		8						4			12	$ 1,660			$ 30,000	20%	$ 36,000	$ 37,660
2.09	Sediment Sampling Plan (& CT DEEP Signoff) (includes 3 meetings)(both impoundments)					32		36	2	2		72	$ 11,043				20%	$ -	$ 11,043
2.10	Sediment Probes (both					48		48				96	$ 14,390		$ 1,500		20%	$ -	$ 15,890
2.11	Mechanical Borings & Sediment Sample Collection (both impoundments)					24			8			32	$ 4,641		$ 1,000	$ 30,000	20%	$ 36,000	$ 41,641
2.12	Upstream and Downstream Sediment Sample Collection					8						8	$ 1,080		$ 100		20%	$ -	$ 1,180
2.13	Sediment Lab Analysis (physical and chemical on 25 samples) & Comparison to Criteria					8			8			16	$ 2,481		$ 50	$ 50,000	20%	$ 60,000	$ 62,531
2.14	HBMA x 4 Building w/ Lab Analysis											0	$ -			$ 35,000	20%	$ 42,000	$ 42,000
2.15	Phase II Oversight/ Doc Prep											0	$ -			$ 40,000	20%	$ 48,000	$ 48,000
2.16	Phase II Lab Analysis											0	$ -			$ 20,000	20%	$ 24,000	$ 24,000
2.17	Phase I ESA											0	$ -			$ 10,000	20%	$ 12,000	$ 12,000
2.18	Remediation Action Plan											0	$ -			$ 35,000	20%	$ 42,000	$ 42,000
2.19	Historic & Archeological Report (update 1999 report and make and					8			8			16	$ 2,481			$ 30,000	20%	$ 36,000	$ 38,481
2.20	Natural Diversity Database Check for know Rare, Threatened, and				8				2			10	$ 1,430				20%	$ -	$ 1,430
2.21	Set Photo Points					4						4	$ 540				20%	$ -	$ 540
2.22	Set Monitoring Monuments					2			2			4	$ 620			$ 5,000	20%	$ 6,000	$ 6,620
2.23	Contaminants					4			8			12	$ 1,941			$ 15,000	20%	$ 18,000	$ 19,941
2.24	Ground Penetrating Radar to Identify Underlying Riverbed and						4		4			8	$ 1,300			$ 25,000	20%	$ 30,000	$ 31,300
2.25	Easement Mapping (if needed)					4			4			8	$ 1,240			$ 15,000	20%	$ 18,000	$ 19,240
	TASK 2: TOTAL HOURS		18	0	108	174	144	92	98	24	0	658	$ 99,431		$ 2,650	$ 375,000		$ 450,000	$ 552,081
	LABOR FEE		$ 2,160	$ -	$ 14,580	$ 23,490	$ 21,600	$ 15,162	$ 17,160	$ 5,280	$ -								
3	**Engineering Analysis**																		
3.01	Alternatives Analysis of Dam Removal Options					32	16		32			80	$ 12,323				20%	$ -	$ 12,323
3.02	Sediment Transport/Mobility Analysis					60		60	16	4		140	$ 21,670				20%	$ -	$ 21,670
3.03	Geomorphic Channel Assessment (with substrate characterization)					16	16					32	$ 4,560		$ 150		120%	$ -	$ 4,710
3.04	Sediment Management Plan (with LEP)				40		60	60	60	4		224	$ 35,674			$ 8,000	20%	$ 9,600	$ 45,274
3.05	Streambank Stability Analysis (for Route 8 and RR embankments)				16		32	24	4	4		80	$ 12,496				20%	$ -	$ 12,496
3.06	Hydrologic Analysis					32		32	4			68	$ 10,294				20%	$ -	$ 10,294
3.07	Hydraulic Analysis (Water surface profile modeling and assessment of flood impacts/attenuation)		32			40		40	16	8		136	$ 20,394				20%	$ -	$ 20,394
3.08	Fish Passage Assessment				24	24		4	1			53	$ 7,314				20%	$ -	$ 7,314
3.09	Well Impact Assessment				60		60	40	8	4		172	$ 25,973				20%	$ -	$ 25,973
3.10	Impacts				60		60		16	8		144	$ 21,662		$ 1,500	$ 20,000	20%	$ 24,000	$ 47,162
3.11	Broad Street Bridge & RR Bridge Scour Assessment					32		32	4	2		70	$ 10,734				20%	$ -	$ 10,734
	TASK 3: TOTAL HOURS		32	0	200	236	244	292	161	34	0	1199	$ 183,093		$ 1,650	$ 28,000		$ 33,600	$ 218,343
	LABOR FEE		$ 3,840	$ -	$ 27,000	$ 31,860	$ 36,600	$ 48,122	$ 28,191	$ 7,480	$ -								
4	**Engineering Design**																		
4.01	Project Design Renderings		4		32		32		4			72	$ 10,300				20%	$ -	$ 10,300
4.02	Invasive Species Management Plan		8		32		32		4			76	$ 10,780				20%	$ -	$ 10,780
4.03	Restoration & Planting Plan				40		40	10	6	4		100	$ 14,979				20%	$ -	$ 14,979
4.04	Preliminary Engineering Design Plans for Dam Removal		200			200		140	60	16	8	624	$ 90,178				20%	$ -	$ 90,178
4.05	Preliminary Basis of Design Report				32	32	32	32	8			136	$ 20,114				20%	$ -	$ 20,114
4.06	Preliminary Engineers Estimate of Probable Cost (with Contractor Input/Review)					32		24	16	2		74	$ 11,517				20%	$ -	$ 11,517
4.07	Preliminary Technical Specifications					60		32	8	4		104	$ 15,654				20%	$ -	$ 15,654
4.08	Final Design Plans for Dam removal (includes E&S, construction sequencing, profile, x-sections, sediment depths, restoration plan, planting, invasive species management, details, notes, etc)		200			200		140	60	16	8	624	$ 90,178				20%	$ -	$ 90,178
4.09	Final Basis of Design Report				16			8	2			26	$ 3,829				20%	$ -	$ 3,829
4.1	Cost					16		8	2			26	$ 3,829				20%	$ -	$ 3,829
4.11	Final Bid Package (Front end and technical specifications) with Bid Form & Quantities					40		32	24	2	2	100	$ 15,836				20%	$ -	$ 15,836
4.12	Siphons											0	$ -			$ 310,000	NVCOG	$ 310,000	$ 310,000
4.13	Monitoring Recommendations				16		24					40	$ 5,760				20%	$ -	$ 5,760
	TASK 4: TOTAL HOURS		412	0	168	580	160	426	194	44	18	2002	$ 292,954		$ -	$ 310,000		$ 310,000	$ 602,954
	LABOR FEE		$ 49,440	$ -	$ 22,680	$ 78,300	$ 24,000	$ 70,205	$ 33,969	$ 9,680	$ 4,680								

Project Name: Kinneytown Dam Removal Engineering & Permitting - Engineering Consulting Firm (TBD)
River Name: Naugatuck River
Location: Seymour, CT

Project Fee Estimate for Engineering & Permitting

5	**Permitting**																		
5.01	Coordination with Resource Agencies			16		24		24			64	$ 9,962		$ 1,000		20%	$ -	$ 10,962	
5.02	restoration)			32		24		16	2		74	$ 11,162				20%	$ -	$ 11,162	
5.03	Initial Regulatory Consultation (2)					16		16			32	$ 5,202		$ 200		20%	$ -	$ 5,402	
5.04	Pre-Application Meetings (2)					8		8			16	$ 2,601		$ 200		20%	$ -	$ 2,801	
5.05	State Permits (Dam Safety, Fisheries Review, Remediation Review,			80	40	80	24	24	2		250	$ 36,798		$ 500		20%	$ -	$ 37,298	
5.06	ACOE Permit			40	24	32	8	8	1		113	$ 16,379		$ 500		20%	$ -	$ 16,879	
5.07	Local Permits (may have stormwater review, flood management,			32	24	16		8			80	$ 11,361		$ 500		20%	$ -	$ 11,861	
5.08	Public Meetings (2)					8		8			16	$ 2,601		$ 150		20%	$ -	$ 2,751	
5.09	Section 106 Consultation			32		8		16			56	$ 8,322				20%	$ -	$ 8,322	
	TASK 5: TOTAL HOURS	**0**	**0**	**232**	**88**	**216**	**32**	**128**	**5**	**0**	**701**	**$ 104,386**		**$ 3,050**	**$ -**		**$ -**	**$ 107,436**	**$ 1,528,203 Total for Year 1**
	LABOR FEE	$ -	$ -	$ 31,320	$ 11,880	$ 32,400	$ 5,274	$ 22,413	$ 1,100	$ -									
6	**Bid Assistance**																		
6.01	Respond to Regulatory Review & Revision of Bid Documents (plans, report, cost and bid package based on regulatory input and	160			160		80	40	16		456	$ 64,508				20%	$ -	$ 64,508	
	Respond to Contractors Questions Re: Design and Bid Package				16		24	24	16		80	$ 13,838				120%	$ -	$ 13,838	
6.02	Recommendations						8	16	2		26	$ 4,560				20%	$ -	$ 4,560	
6.03	Assist with Negotiations for Construction Costs						16	16	8		40	$ 7,198				20%	$ -	$ 7,198	
	TASK 6: TOTAL HOURS	**160**	**0**	**0**	**176**	**0**	**128**	**96**	**42**	**0**	**602**	**$ 90,104**		**$ -**	**$ -**		**$ -**	**$ 90,104**	**$ 90,104 Total for Year 2**
	LABOR FEE	$ 19,200	$ -	$ -	$ 23,760	$ -	$ 21,094	$ 16,810	$ 9,240	$ -									
7	**Construction Management**																		
7.01	Construction Management				80		160	160	24	8	432	$ 72,544				20%	$ -	$ 72,544	
7.01	Construction Oversite/Inspection Services (3 days/wk)				1200		320	80			1600	$ 228,744		$ 19,200		20%	$ -	$ 247,944	
7.01	Review & Approve Submittals				40		40	16			96	$ 14,794				20%	$ -	$ 14,794	
7.01	Weekly Construction Meetings				80		80				160	$ 23,984		$ 6,400		20%	$ -	$ 30,384	
7.01	Construction Services for Relocation of Sewer Siphons										0	$ -			$ 294,000	NVCOG	$ 294,000	$ 294,000	
7.01	Construction Close Out						24	24			48	$ 8,158				20%	$ -	$ 8,158	
	TASK 7: TOTAL HOURS	**0**	**0**	**0**	**1400**	**0**	**624**	**280**	**24**	**8**	**2336**	**$ 348,223**		**$ 25,600**	**$ 294,000**		**$ 294,000**	**$ 667,823**	
	LABOR FEE	$ -	$ -	$ -	$ 189,000	$ -	$ 102,835	$ 49,028	$ 5,280	$ 2,080									
8	**Regulatory Close Out**																		
8.01	Close our Permits as per Regulatory Requirements			24		16		4			44	$ 6,340				20%	$ -	$ 6,340	
	TASK 8: TOTAL HOURS	**0**	**0**	**24**	**0**	**16**	**0**	**4**	**0**	**0**	**44**	**$ 6,340**		**$ -**	**$ -**		**$ -**	**$ 6,340**	**$ 674,164 Total for Year 3**
	LABOR FEE	$ -	$ -	$ 3,240	$ -	$ 2,400	$ -	$ 700	$ -	$ -									
	TOTAL PROJECT HOURS/FEE	**622**	**0**	**736**	**2658**	**804**	**1714**	**1081**	**177**	**30**	**7822**	**$ 1,171,920.30**		**$ 32,950.00**	**$ 1,007,000.00**		**$ 793,600.00**	**$ 2,292,470**	

sumptions

Investigation, Design, Permitting, Bidding and Construction Management for the relocation of the sewer sipons is not included in this engineering budget

Energy Analysi for replacing hydro with solar is not included in this engineering budget

Red text denotes tasks associated with sediment sampling, analysis, and sediment management planning

All sediment work covered by EPA

Engineering and construction services for relocation of sewer siphons paid as contractual costs by NVCOG

Sediment Work Subtotal $ 392,222

Engineering Outline Scope of Work & Budget

Project Name: Kinneytown Dam Removal Construction - Construction Contractor (TBD)
River Name: Naugatuck River
Location: Seymour, CT

Estimate of Probable Construction Cost (based on conceptual design)

Task #	Task	Quantity (low estimate)	Quantity (high Estimate)	Unit	Cost Alt (low estimate)	Cost Alt 2 (high estimate)	Comments
1	Mobilization/Demobilization Dam Removal	1	1	EA	$ 1,000,000.00	$ 1,500,000.00	Dam Removal mob/demob is based off 5% on the total before contingency
2	Mobilization/Demobilization Hydraulic Dredge	1	1	EA	$ 3,300,000.00	$ 3,300,000.00	Hydraulic dredge mobilization/demob is $3.3million and is site-specific
3	Stakeout Survey	1	1	LS	$ 150,000.00	$ 250,000.00	
4	Install E&S Controls	15,000	15,000	LF	$ 105,000.00	$ 120,000.00	~$7/LF for low end; ~$8/LF for high end
5	Install Site Access Controls (i.e. blaze orange fencing and signage)	1	1	LS	$ 25,000.00	$ 50,000.00	
6	Install Eastern and Western Access Roads	2	2	EA	$ 35,000.00	$ 45,000.00	Access to edge of water
7	Clearing & Grubbing	1	1	LS	$ 50,000.00	$ 100,000.00	
8	Electrical Disconnection	1	1	LS	$ 35,000.00	$ 50,000.00	Assumes installation of temp. gate
9	Replace or Modify Low Level Outlet Sluice Gate for use during Dredging and Dam Removal (if needed)	1	1	LS	$ 25,000.00	$ 40,000.00	Assumes installation of temp. gate
10	Relocation of 2 Sewer Siphons and Construction of New Sewer Interceptor	1	1	LS	$ 2,920,000.00	$ 2,920,000.00	Based on a more detailed budge provided to NVCOG by local contractors and Black & Veach
11	Remove Gate House at Upstream end of Canal	1	1	LS	$ 40,000.00	$ 70,000.00	Assumes no hazardous materials
12	Preparation of Canal and Coe Pond for Transport and Disposal of Hydraulic Dredge Spoils	1	1	LS	$ 50,000.00	$ 125,000.00	Assume dewatering and straw wattles
13	Coordination with DOT and RR (as needed)	1	1	LS	$ 100,000.00	$ 200,000.00	Includes force account deposit for subervision from RR when work withing the RR ROW is ongoing
14	Install Maintenance of Traffic signage as needed for RR crossing	1	1	LS	$ 5,000.00	$ 10,000.00	
15	Monitor upstream embankments when dewatering impoundment	1	1	LS	$ 3,500.00	$ 5,000.00	
16	Remove Floating Boom from Upstream of Dam	1	1	LS	$ 10,000.00	$ 10,000.00	
17	Water Control (including removal of flashboards)	1	1	LS	$ 100,000.00	$ 150,000.00	Assume work can be done in the wet without a cofferdam
18	Sediment Management Option #1: Hydraulic Dredge and Sluice Spoils into Coe Pond	316,213	531423	CY	$ 7,570,139.22	$ 12,722,266.62	Assumes material is dredgable with a hydraulic dredge; Low end assumes that the first 4 feet of sediment within the wetted central channel (~49ac) is hydraulically dredged and sluiced into Coe Pond (over 3.5 to 4.5 months); High end assumes ~70% of the total amount of sediment is dredged based on hydrauic cross sections to determine potentially mobile sediment over 5.5 to 7.5 months); Could get hydraulic dredging permitted quickly to start dredging in year 2.
21	Remove fish ladder (off site disposal)	300		CY	$ 75,000.00	$ 110,000.00	
22	Remove powerhouse & all Appurtenance Facilities (off site disposal)	1	1	LS	$ 150,000.00	$ 350,000.00	Assumes some level of remediation (remediation alone was $125K on Saccarrappa)
23	Sawcut Spillway on Eastern & Western Ends	2	2	EA	$ 90,000.00	$ 110,000.00	
24	Repair and Stabilize Eastern Spillway Abutment	1	1	LS	$ 50,000.00	$ 150,000.00	High end include some concrete facing work
25	Stabilize Railroad Bridge Abutments and Central Pier	1	1	LS	$ 50,000.00	$ 100,000.00	Assume bridge will be dewatered post removal and that there is a concrete apron beneath the bridge
26	Remove Kinneytown Dam Spillway (moving from east to west)	9,000	9,000	CY	$ 1,350,000.00	$ 2,200,000.00	
27	Remove Timber Cribbing U/S of Kinneytown Dam	1	1	LS	$ 75,000.00	$ 90,000.00	
28	Remove/Bury Remaining Structures From Eastern Bank (i.e. retaining walls, tailraces, penstock, etc.)	1	1	LS	$ 250,000.00	$ 350,000.00	
29	Remove or stabilize through burial the Canal Reservoir Dam	1	1	LS	$ 40,000.00	$ 75,000.00	
30	Remove Canal Reservoir Dam Powerhouse	1	1	LS	$ 100,000.00	$ 250,000.00	Assumes some level of remediation (remediation alone was $125K on Saccarrappa)
31	Cap former Coe Pond Sites (to protect the public from dredge spoils)	1	1	LS	$ 6,000,000.00	$ 7,500,000.00	Includes orange demarcation layer, 1ft sand, 6" topsoil (for canal and pond)
32	Restore former Coe Pond & Canal Sites	1,760,000	1,760,000	SF	$ 224,400.00	$ 250,000.00	Assumed just seeding here
33	Restore Tributary through former Coe Pond site and construct waterfall feature at former Canal Reservoir Dam site	1	1	LS	$ 400,000.00	$ 750,000.00	Not sure what this would look like but assumed a stone lined channel
34	Construct Greenway through canal and former Coe Pond site	1	1	LS	$ 150,000.00	$ 200,000.00	Assume gravel path
35	Construct Pedestrian River Access through former Coe Pond site to Naugatuck River (under active railroad track)	1	1	LS	$ 70,000.00	$ 150,000.00	Stairway under RR Bridge and along side manamade waterfall/cascade
36	Invasive Species Management	1	1	LS	$ 50,000.00	$ 150,000.00	Just invasive plant control during construction
37	Place Stabilization on Eastern and Western Toe of Streambank Upstream to Stabilize RR and Route 8 as needed	1,000	2,000	LF	$ 400,000.00	$ 800,000.00	Estimated quantity
38	Restore access routes/staging areas as needed	1	1	LS	$ 150,000.00	$ 200,000.00	
39	Topsoil	1	1	LS	$ 400,000.00	$ 500,000.00	Most of the topsoil is carried in the Coe Pond item
40	Seed	1	1	LS	$ 50,000.00	$ 100,000.00	Most of the seed is in the Coe Pond item as I believe much of the impondment will revegatate on it's own; assumes no additional plantings
41	As-built Survey	1	1	LS	$ 50,000.00	$ 75,000.00	Assume LIDAR drone survey
42	Remove E&S controls post site stabilization	15,000	30000	LF	$ 75,000.00	$ 150,000.00	

$ 25,773,039.22	$ 36,277,266.62	Estimate of Base Cost Range
$ 5,154,607.84	$ 7,255,453.32	20% Contingency
$ 30,927,647.06	**$ 43,532,719.94**	Estimate of Construction Cost Range

$ 10,623,480.00	**$ 15,156,000.00**	Estimate of Construction Cost Range without the Sediment Work (which we assume will be covered by EPA grants)

Assumptions

Impounded sediment: Mechanical dredging and trucking to an approved disposal facility has been eliminated as an option due to the extreme cost and unlikely chance that a suitable disposal site could be found to take that much sediment; Low estimate is a partial hydraulic dredge of the first 4 feet of sediment sluiced into Coe Pond, with capping and restoration of the former Coe Pond site. High estimate is hydraulic dredge of the likely mobile fraction of the impounded sediment.

Dewatered streambed upstream will not require restoration work and will be allowed to stabilize and vegetate passively

2 sanitary sewer siphon will be relocated downstream of Kinneytown

Red text are tasks associated with sediment management

Estimate of Probable Construction Cost (based on Conceptual Design Plans)

Sheet 10

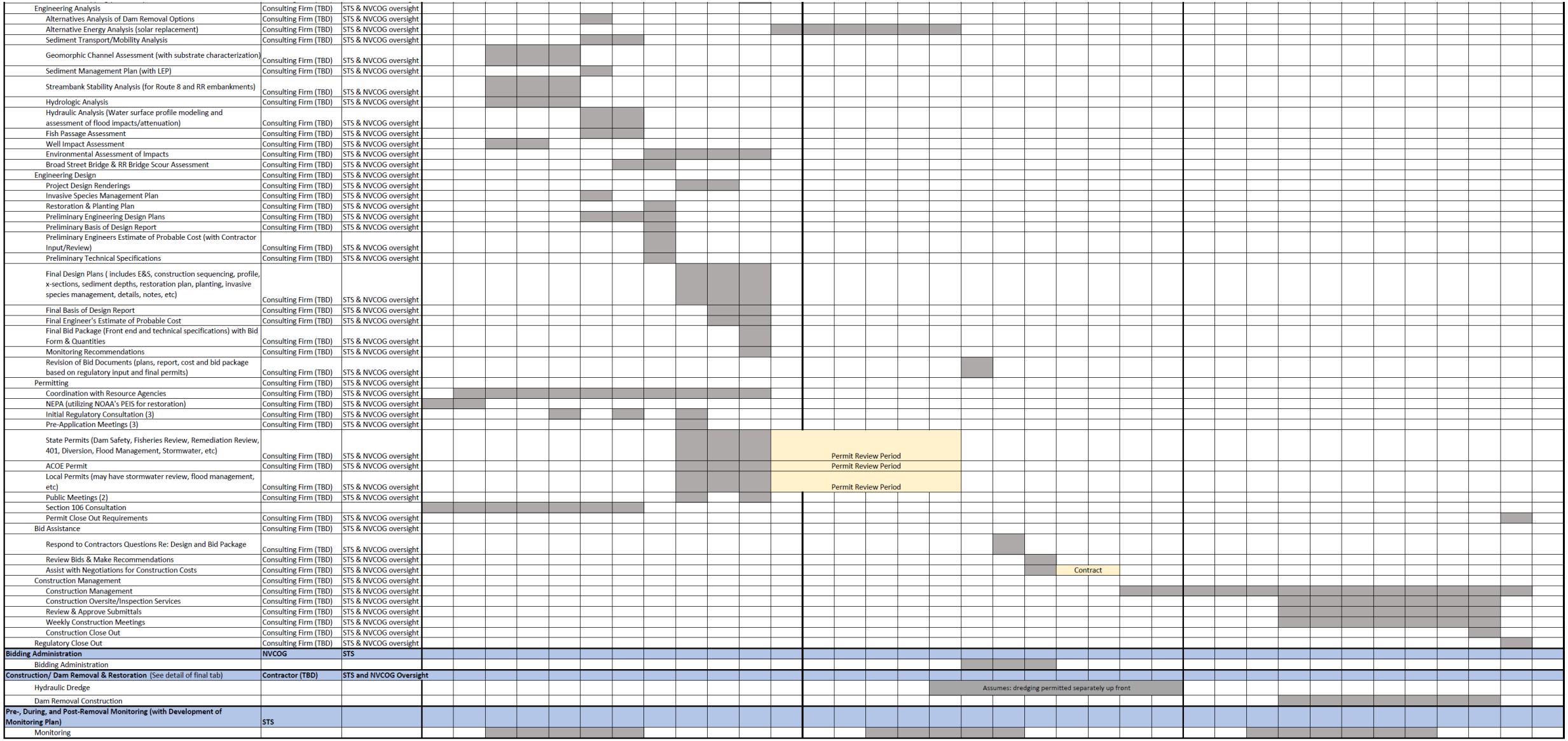
Kinneytown Dam Removal Project Timeline

Scope, Responsibilities, & Timeline with Milestones

Task	Responsible Party	Assistance By	2023 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2024 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2025 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Project Administration	**NVCOG**																																					
Management of Grant	NVCOG																																					
Grant Reporting	NVCOG																																					
Project Meetings																																						
Property Access Coordination																																						
Property Acquisition (transfer of ownership)	**NVCOG**																																					
Coordination with Dam Owner																																						
Legal	NVCOG	STS																																				
Carrying Costs/ Facility Management	NVCOG																																					
Set up Conservation Easement over Site	NVCOG																																					
Project Management	**STS**	**NVCOG**																																				
Project Management for Engineering	STS																																					
Project Management for Construction	STS																																					
Project Meetings	STS																																					
Permit Coordination	STS																																					
Bid Administration	NVCOG	STS																																				
Construction Observation	STS	NVCOG																																				
Project Close Out	STS	NVCOG																																				
FERC Decommissioning	**NVCOG**	**STS**																																				
Legal	NVCOG	STS																																				
Coordination	NVCOG	STS																																				
FERC Meetings	NVCOG	STS																																				
Outreach & Education - Public Involvement	**STS**	**NRRG, NVCOG**																																				
Underserved Community Stakeholder Group	STS/NVCOG																																					
Measurement of Benefits to Underserved Communities	STS/NVCOG																																					
Envisioning Charettes with Local Communities (including River Access and Park idea for the underserved community around Coe Pond)	STS/NVCOG																																					
Educational Workshops (2) (for NGO's, Conservation Corps, Interns, early career professionals, underserved communities, policy makers, etc)	STS																																					
Public Meetings (3)	STS/NVCOG																																					
Web-based Storymap (updating by NVCOG)	NVCOG																																					
River Clean-up Events (3)	NRRG	STS																																				
Documentary Film by NRRG (highlighting history, fisheries, collaborative process, analysis, removal, restoration, and monitoring)	NRRG																																					
Press Visits (4)	STS																																					
Naugatuck River Community Celebration Event	NRRG	STS, NVCOG																																				
Dam Removal Analysis & Design	**Consulting Firm (TBD)**	**STS & NVCOG oversight**																																				
Engineering Project Management/Coordination	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Project Management/Coordination	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Project Meetings	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Regular Update Meetings/Calls	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Data Collection / Field Work	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Collection & Review of Existing Data	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Monitoring Plan	Consulting Firm (TBD)	STS & NVCOG oversight																																				
QAPP	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Wetland & Regulated Resource Delineation	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Utilities Investigation	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Property Boundaries	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Topographic Survey	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Bathymetric Survey	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Sediment Sampling Plan (& CT DEEP Signoff) (includes 4 meetings)(both impoundments)	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Sediment Probes (both impoundments)	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Mechanical Borings & Sediment Sample Collection (both impoundments)	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Upstream and Downstream Sediment Sample Collection	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Sediment Lab Analysis (physical and chemical) & Comparison to Criteria	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Historic & Archeological Report (update 1999 report and make and Section 106 recommendations)	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Natural Diversity Database Check for know Rare, Threatened, and Endangered Species	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Set Photo Points	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Set Monitoring Monuments	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Ground Penetrating Radar to Identify Underlying Riverbed and Bedrock	Consulting Firm (TBD)	STS & NVCOG oversight																																				
Easement Mapping (if needed)	Consulting Firm (TBD)	STS & NVCOG oversight																																				

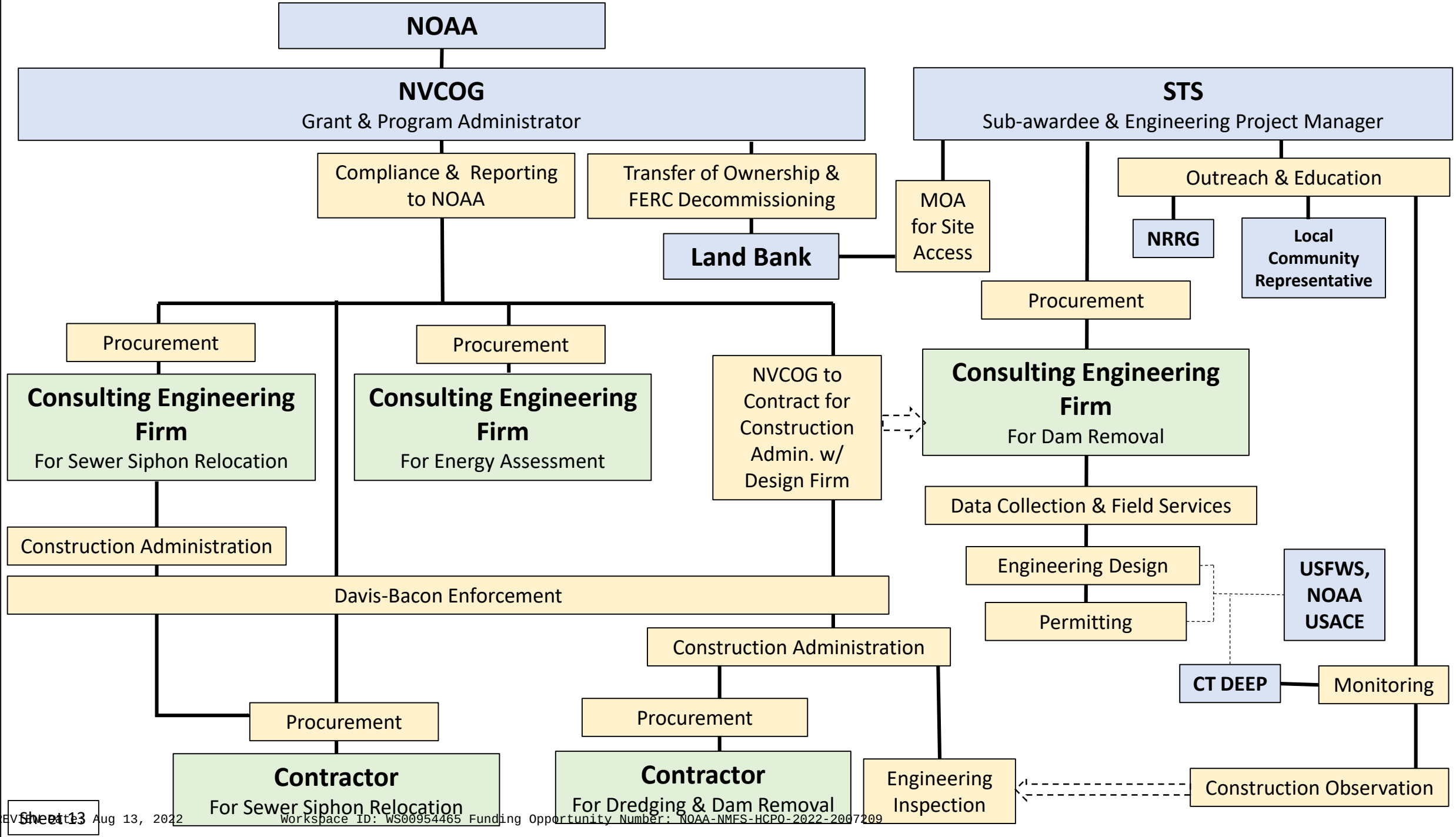
Kinneytown Dam Removal Project Timeline

Engineering Analysis	Consulting Firm (TBD)	STS & NVCOG oversight
Alternatives Analysis of Dam Removal Options	Consulting Firm (TBD)	STS & NVCOG oversight
Alternative Energy Analysis (solar replacement)	Consulting Firm (TBD)	STS & NVCOG oversight
Sediment Transport/Mobility Analysis	Consulting Firm (TBD)	STS & NVCOG oversight
Geomorphic Channel Assessment (with substrate characterization)	Consulting Firm (TBD)	STS & NVCOG oversight
Sediment Management Plan (with LEP)	Consulting Firm (TBD)	STS & NVCOG oversight
Streambank Stability Analysis (for Route 8 and RR embankments)	Consulting Firm (TBD)	STS & NVCOG oversight
Hydrologic Analysis	Consulting Firm (TBD)	STS & NVCOG oversight
Hydraulic Analysis (Water surface profile modeling and assessment of flood impacts/attenuation)	Consulting Firm (TBD)	STS & NVCOG oversight
Fish Passage Assessment	Consulting Firm (TBD)	STS & NVCOG oversight
Well Impact Assessment	Consulting Firm (TBD)	STS & NVCOG oversight
Environmental Assessment of Impacts	Consulting Firm (TBD)	STS & NVCOG oversight
Broad Street Bridge & RR Bridge Scour Assessment	Consulting Firm (TBD)	STS & NVCOG oversight
Engineering Design	Consulting Firm (TBD)	STS & NVCOG oversight
Project Design Renderings	Consulting Firm (TBD)	STS & NVCOG oversight
Invasive Species Management Plan	Consulting Firm (TBD)	STS & NVCOG oversight
Restoration & Planting Plan	Consulting Firm (TBD)	STS & NVCOG oversight
Preliminary Engineering Design Plans	Consulting Firm (TBD)	STS & NVCOG oversight
Preliminary Basis of Design Report	Consulting Firm (TBD)	STS & NVCOG oversight
Preliminary Engineers Estimate of Probable Cost (with Contractor Input/Review)	Consulting Firm (TBD)	STS & NVCOG oversight
Preliminary Technical Specifications	Consulting Firm (TBD)	STS & NVCOG oversight
Final Design Plans (includes E&S, construction sequencing, profile, x-sections, sediment depths, restoration plan, planting, invasive species management, details, notes, etc)	Consulting Firm (TBD)	STS & NVCOG oversight
Final Basis of Design Report	Consulting Firm (TBD)	STS & NVCOG oversight
Final Engineer's Estimate of Probable Cost	Consulting Firm (TBD)	STS & NVCOG oversight
Final Bid Package (Front end and technical specifications) with Bid Form & Quantities	Consulting Firm (TBD)	STS & NVCOG oversight
Monitoring Recommendations	Consulting Firm (TBD)	STS & NVCOG oversight
Revision of Bid Documents (plans, report, cost and bid package based on regulatory input and final permits)	Consulting Firm (TBD)	STS & NVCOG oversight
Permitting	Consulting Firm (TBD)	STS & NVCOG oversight
Coordination with Resource Agencies	Consulting Firm (TBD)	STS & NVCOG oversight
NEPA (utilizing NOAA's PEIS for restoration)	Consulting Firm (TBD)	STS & NVCOG oversight
Initial Regulatory Consultation (3)	Consulting Firm (TBD)	STS & NVCOG oversight
Pre-Application Meetings (3)	Consulting Firm (TBD)	STS & NVCOG oversight
State Permits (Dam Safety, Fisheries Review, Remediation Review, 401, Diversion, Flood Management, Stormwater, etc)	Consulting Firm (TBD)	STS & NVCOG oversight
ACOE Permit	Consulting Firm (TBD)	STS & NVCOG oversight
Local Permits (may have stormwater review, flood management, etc)	Consulting Firm (TBD)	STS & NVCOG oversight
Public Meetings (2)	Consulting Firm (TBD)	STS & NVCOG oversight
Section 106 Consultation		
Permit Close Out Requirements	Consulting Firm (TBD)	STS & NVCOG oversight
Bid Assistance	Consulting Firm (TBD)	STS & NVCOG oversight
Respond to Contractors Questions Re: Design and Bid Package	Consulting Firm (TBD)	STS & NVCOG oversight
Review Bids & Make Recommendations	Consulting Firm (TBD)	STS & NVCOG oversight
Assist with Negotiations for Construction Costs	Consulting Firm (TBD)	STS & NVCOG oversight
Construction Management	Consulting Firm (TBD)	STS & NVCOG oversight
Construction Management	Consulting Firm (TBD)	STS & NVCOG oversight
Construction Oversite/Inspection Services	Consulting Firm (TBD)	STS & NVCOG oversight
Review & Approve Submittals	Consulting Firm (TBD)	STS & NVCOG oversight
Weekly Construction Meetings	Consulting Firm (TBD)	STS & NVCOG oversight
Construction Close Out	Consulting Firm (TBD)	STS & NVCOG oversight
Regulatory Close Out	Consulting Firm (TBD)	STS & NVCOG oversight
Bidding Administration	**NVCOG**	**STS**
Bidding Administration		
Construction/ Dam Removal & Restoration (See detail of final tab)	**Contractor (TBD)**	**STS and NVCOG Oversight**
Hydraulic Dredge		
Dam Removal Construction		
Pre-, During, and Post-Removal Monitoring (with Development of Monitoring Plan)	**STS**	
Monitoring		

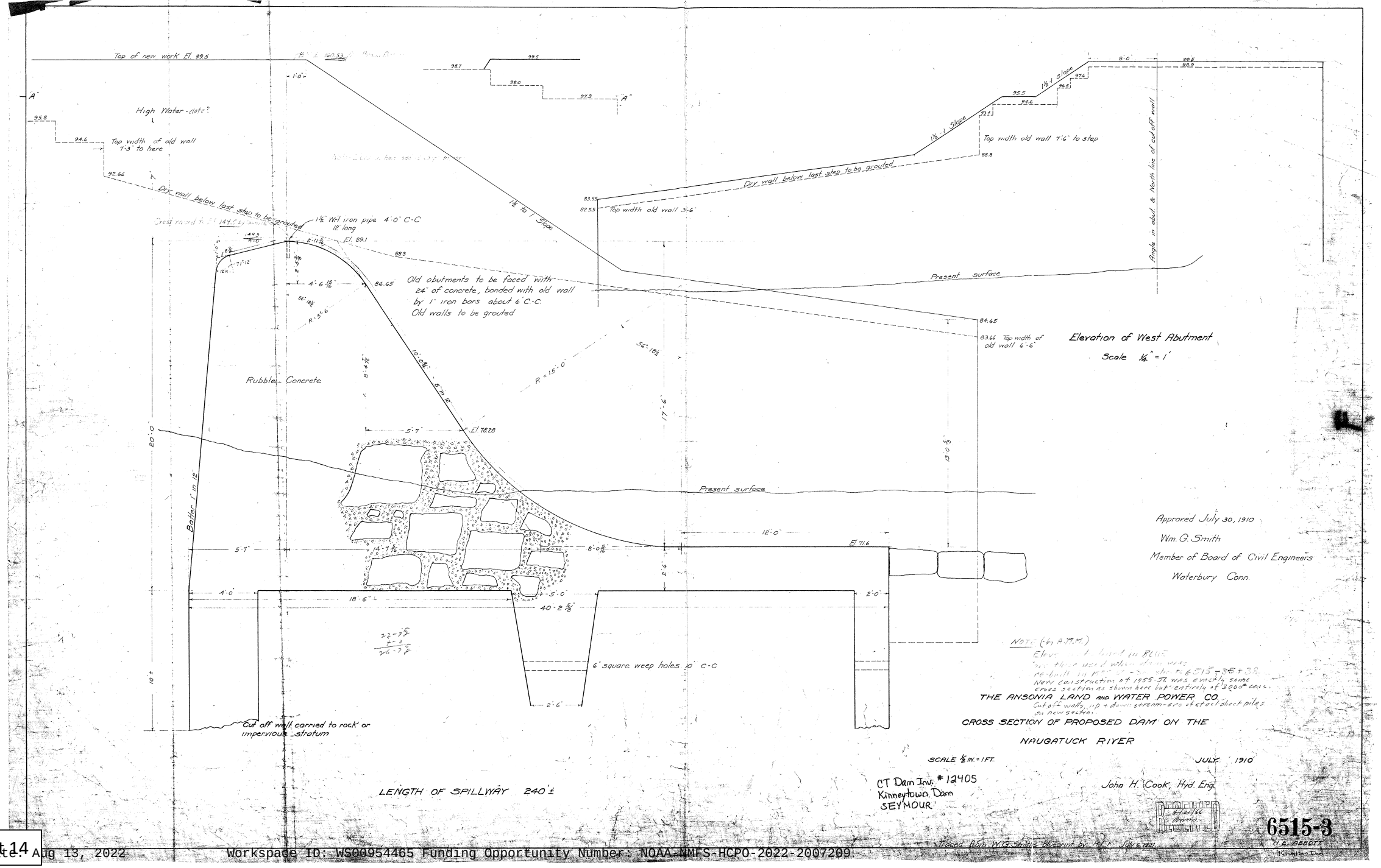


Assumption: This assumes the award will be granted in 2022 with enough time to put the engineering out to bid and select and engineering firm to start work on January 1, 2023
The timeline is dependent on receiving funding for the entire project and on the final sediment management plan, as approved by the regulators.

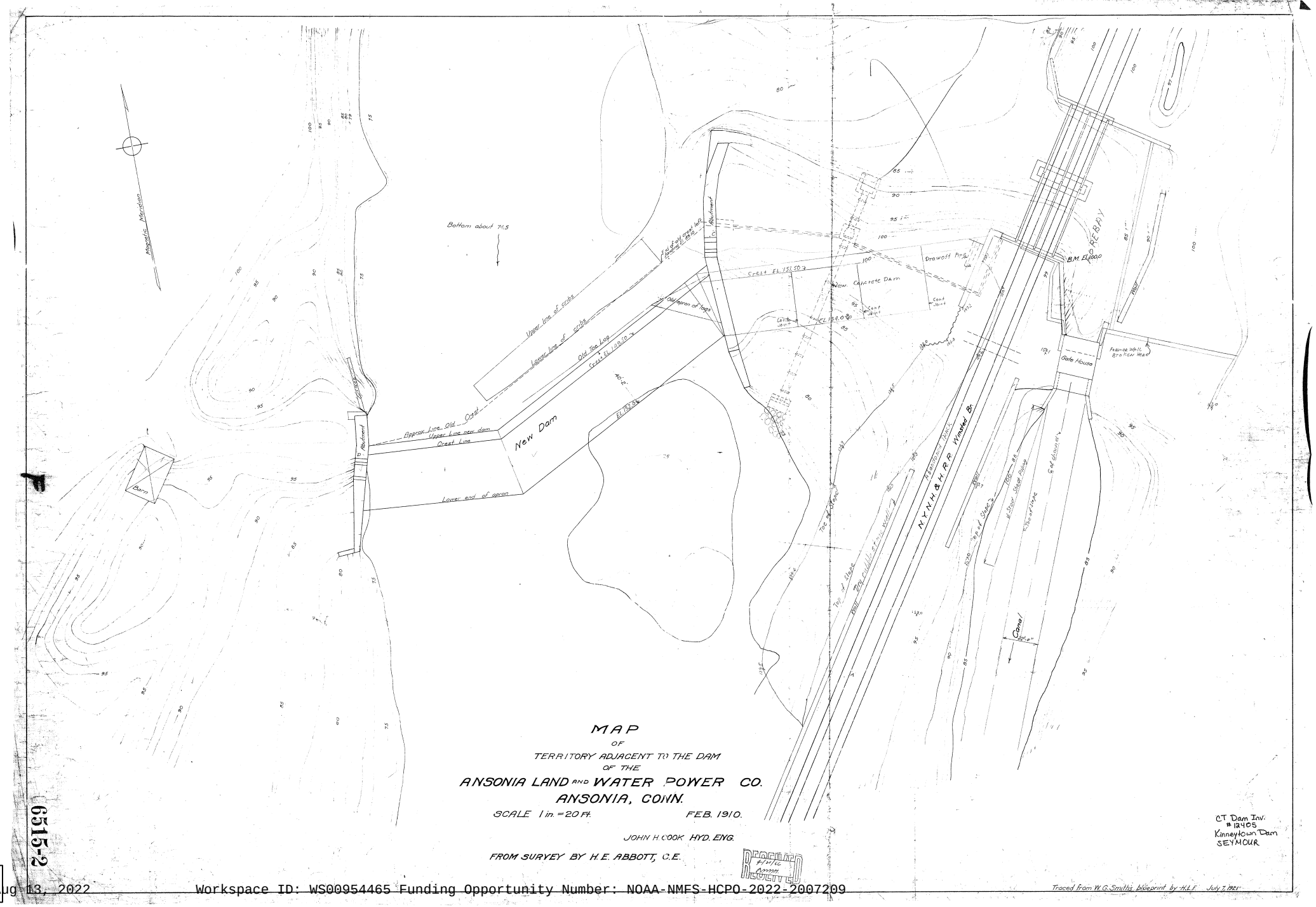
Project Organizational Chart for Work Flow



1910: Cross Section of Proposed Kinneytown Dam



1910: Plan View of Proposed Kinneytown Dam



MAP
OF
TERRITORY ADJACENT TO THE DAM
OF THE
ANSONIA LAND AND WATER POWER CO.
ANSONIA, CONN.

SCALE 1 in. = 20 Ft. FEB. 1910.

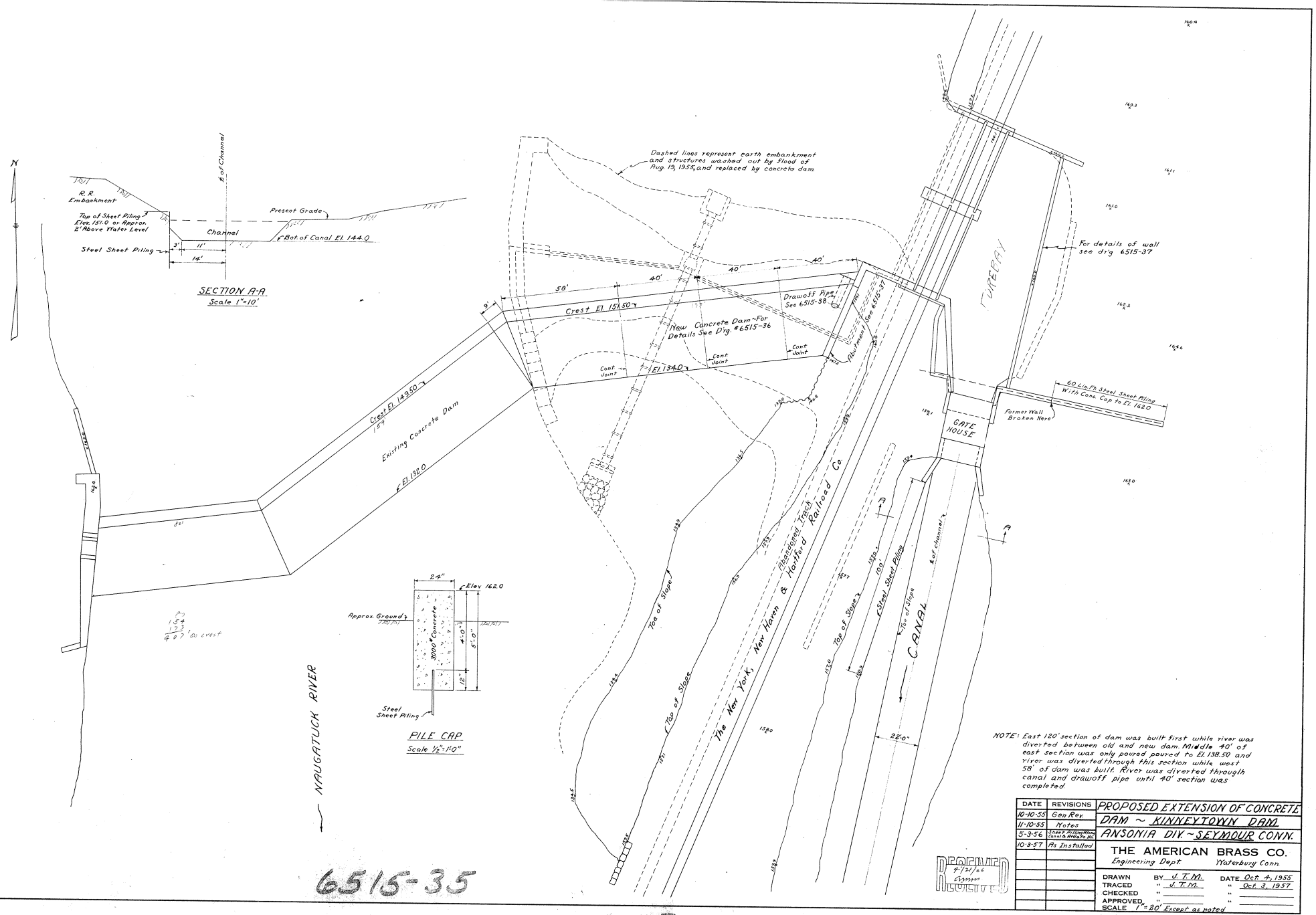
JOHN H. COOK HYD. ENG.

FROM SURVEY BY H.E. ABBOTT, C.E.

615-2

CT Dam Inv. #12405
Kinneytown Dam
SEYMOUR

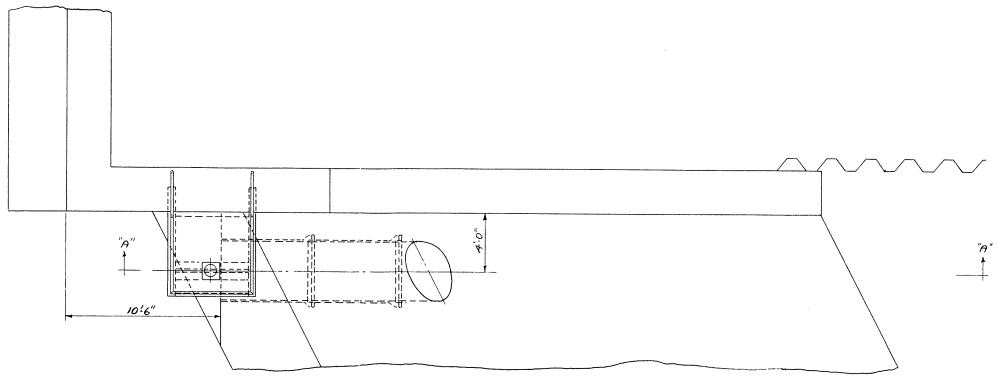
1957: Propose Extension of Kinneytown Dam - As Built



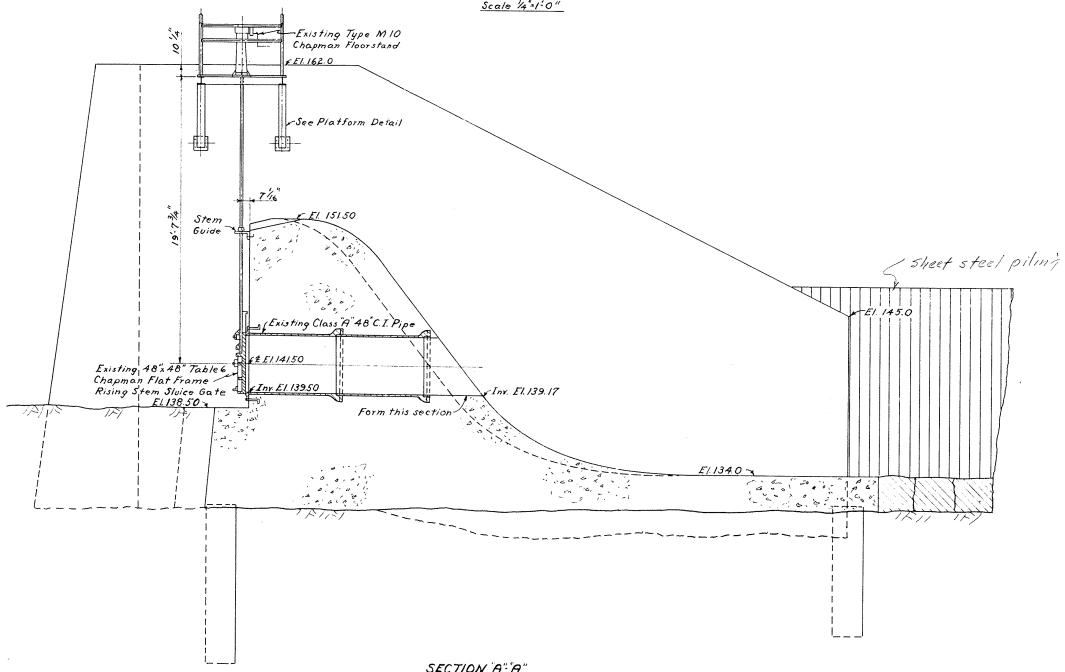
6515-35

Sheet 16

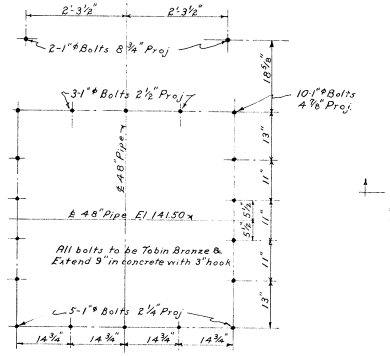
1957: Proposed Extension of Kinneytown Dam - As Built



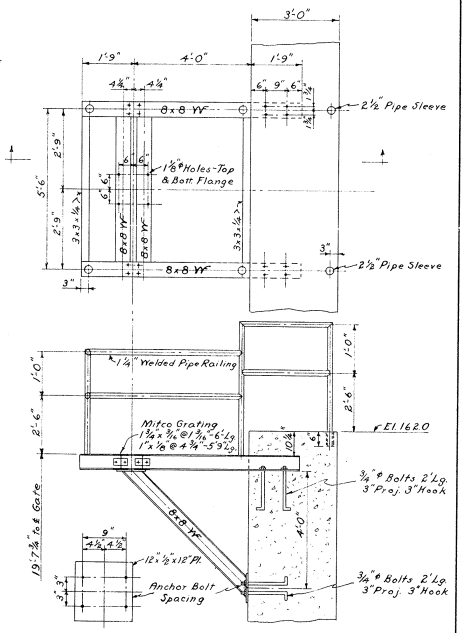
PLAN AT EAST ABUTMENT
SHOWING DRAWOFF PIPING
Scale 1/8"=1'-0"



SECTION "A"-"A"
Scale 1/4"=1'-0"



SLUICE GATE
ANCHOR BOLT DETAIL
Scale 3/4"=1'-0"



DETAILS OF FLOORSTAND PLATFORM
Scale 1/2"=1'-0"

6515-38

DATE	REVISIONS
10-14-37	As Installed

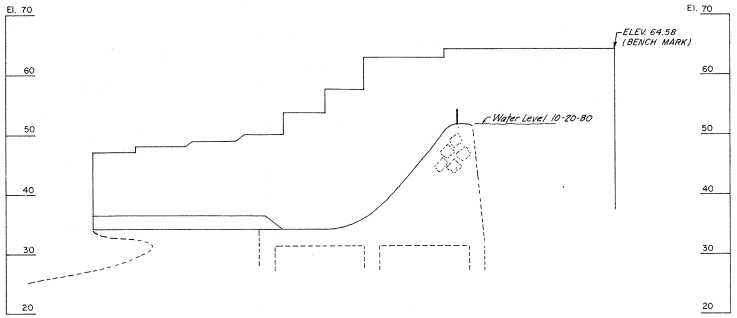
DETAILS OF DRAWOFF PIPING
KINNEYTOWN DAM
ANSONIA DIV. - SEYMOUR CONN.
THE AMERICAN BRASS CO.
Engineering Dept. — Waterbury Conn.

DRAWN	BY J.T.M.	DATE	Nov. 16. 1935
TRACED	" J.T.M.	"	Oct. 14, 1937
CHECKED	"	"	
APPROVED	"	"	
SCALE	As Noted		

CT Dam Inv. #12405

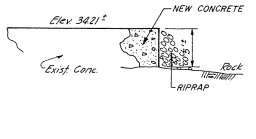
6515-38

1980 Recommended Improvements to the Kinneytown Dam

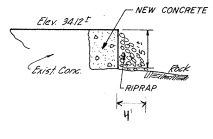


PROFILE RIGHT TRAINING WALL
SCALE: 1"= 10' HORIZ. & VERT.

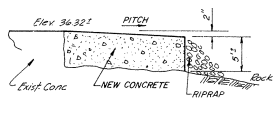
SECTION 3
1/8"=1'-0"



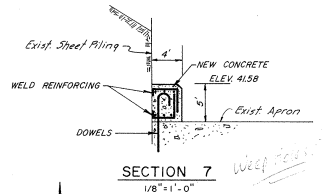
SECTION 4
1/8"=1'-0"



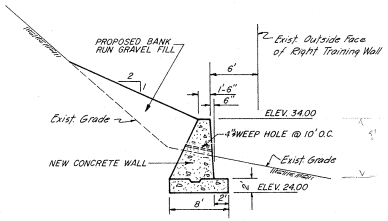
SECTION 5
1/8"=1'-0"



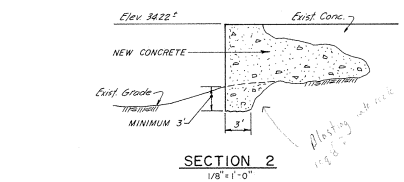
SECTION 6
1/8"=1'-0"



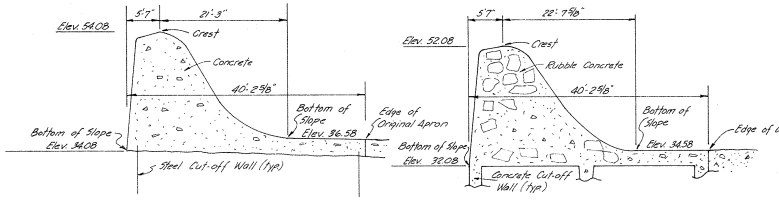
SECTION 7
1/8"=1'-0"



SECTION 1
1/8"=1'-0"



SECTION 2
1/8"=1'-0"



SECTION BB
1"=10'

SECTION AA
1"=10'

PLAN
SCALE: 1"= 20'

NOTES:
1. This drawing to be used in conjunction with Phase II Inspection Report prepared by Philip W. Genovese & Associates, Inc.
2. All elevations refer to National Geodetic Vertical Datum (MSL=C)
3. Existing information noted in free hand lettering. Proposed improvements noted in leroy lettering.
4. This drawing indicates the following recommended improvements:
   a. Retaining wall-right bank
   b. Sheet Piling - Concrete wall
   c. Apron edge
   d. Removal of trees
5. Dam/Spillway and apron surface improvements are noted in Report.

Indicates boring location. See report for boring log.

Note: Sections AA and BB are prepared using the American Brass Company drawings 6515-3, 6515-36, 6515-37 and 6515-38. Other information is based on Philip W. Genovese and Associates, Inc. survey dated November, 1980

APPROVED
STATE OF CONNECTICUT
DEPT. OF ENVIRONMENTAL PROTECTION
BY ORDER DATED 7/21/81

OFFICE COPY
DEC 31 1980
PRELIMINARY

KINNEYTOWN DAM
(PRELIMINARY)
RECOMMENDED IMPROVEMENTS

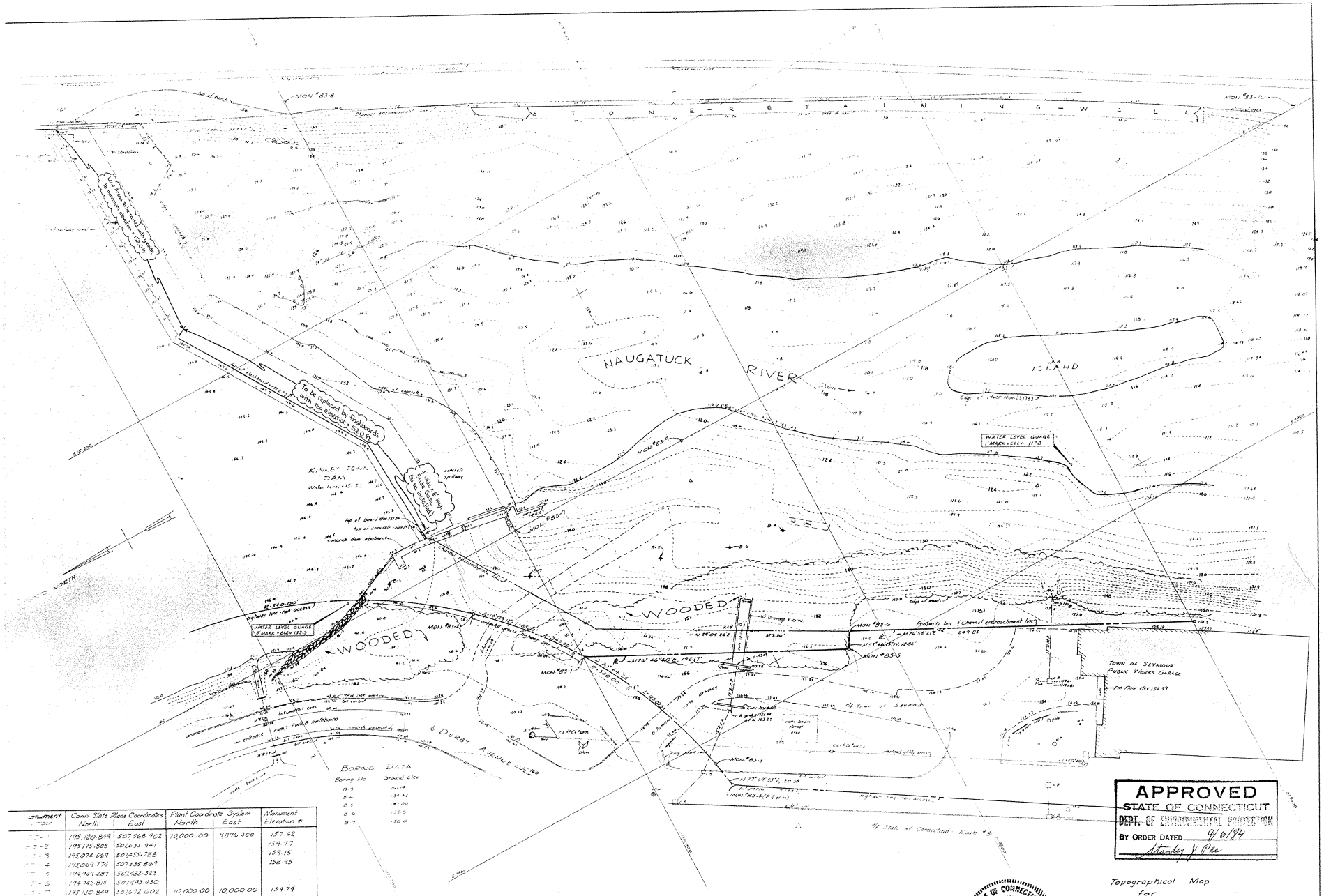
THE ANACONDA INDUSTRIES
BRASS DIVISION
ANSONIA, CONNECTICUT

PHILIP W GENOVESE and ASSOCIATES, INC.
CONSULTING and DESIGN ENGINEERS
HAMDEN, CONNECTICUT

Drawn By:	F.M.S.
Designed By:	P&P / FMS
Approved By:	P&P
Date	DEC., 1980
Project No.	803200
Drawing No.	KD-1

CT Dam Inv. #12405 – SEYMOUR

1984 Survey of the Kinneytown Dam and Addition of Flashboards



Monument No.	Conn. State Plane Coordinates North	Conn. State Plane Coordinates East	Plant Coordinate System North	Plant Coordinate System East	Monument Elevation *
	195,120.849	507,368.902	10,000.00	9896.300	157.42
	195,175.805	507,633.941			159.77
	195,074.069	507,455.788			159.15
	195,069.774	507,435.869			158.95
	194,949.287	507,482.323			
	194,942.815	507,493.430			
	195,120.849	507,672.602	10,000.00	10,000.00	159.79
	195,120.849	508,023.493	10,000.00	10350.891	159.13
	194,784.884	507,672.602	9864.035	10,000.00	126.13
	194,478.419	507,672.602	9557.570	10,000.00	156.31

* Elevations based on mean sea level datum plus 97.42 feet

Boring Data

Boring No.	Ground Elev.
B-3	161.4
B-4	154.2
B-5	141.00
B-6	135.8
B-7	150.0

APPROVED
STATE OF CONNECTICUT
DEPT. OF ENVIRONMENTAL PROTECTION
BY ORDER DATED 9/6/84
Stanley J. Pac

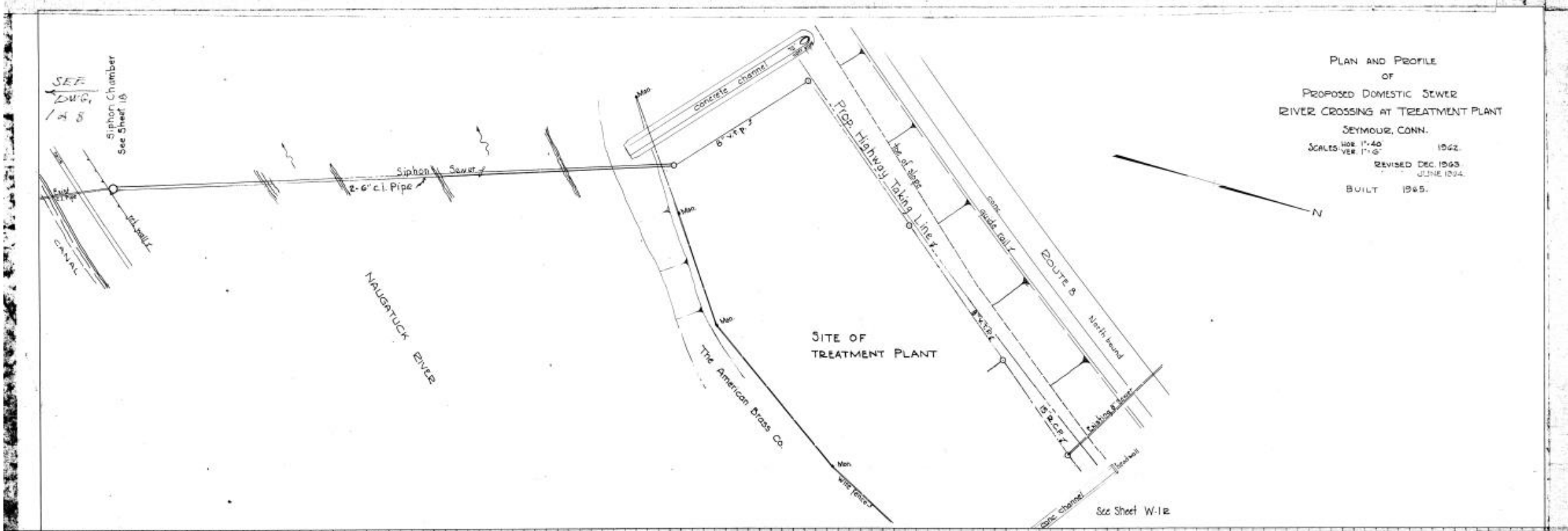
STATE OF CONNECTICUT
PATRICK J. SHEEHAN
No. 13140
LICENSED PROFESSIONAL ENGINEER

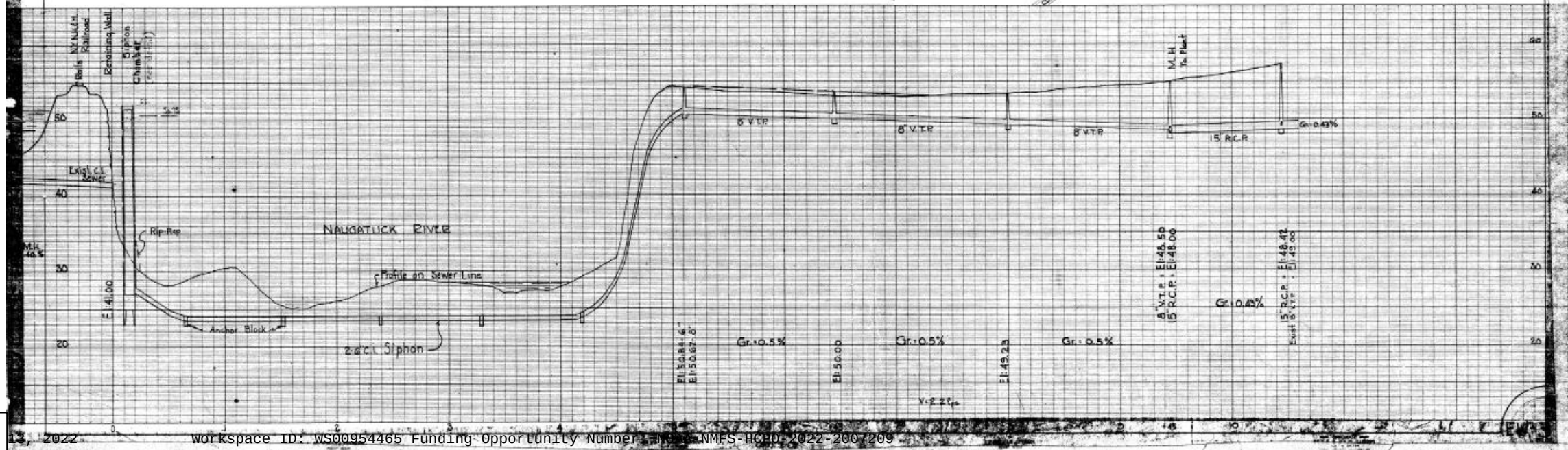
Topographical Map
for
ARCO Metals Hydroelectric Plant
Seymour Connecticut

MICHAEL H. HORBAL
84 MAIN STREET
SEYMOUR CONNECTICUT, 06483

CT Dam Inv. #12405, Kinneytown Dam
SEYMOUR

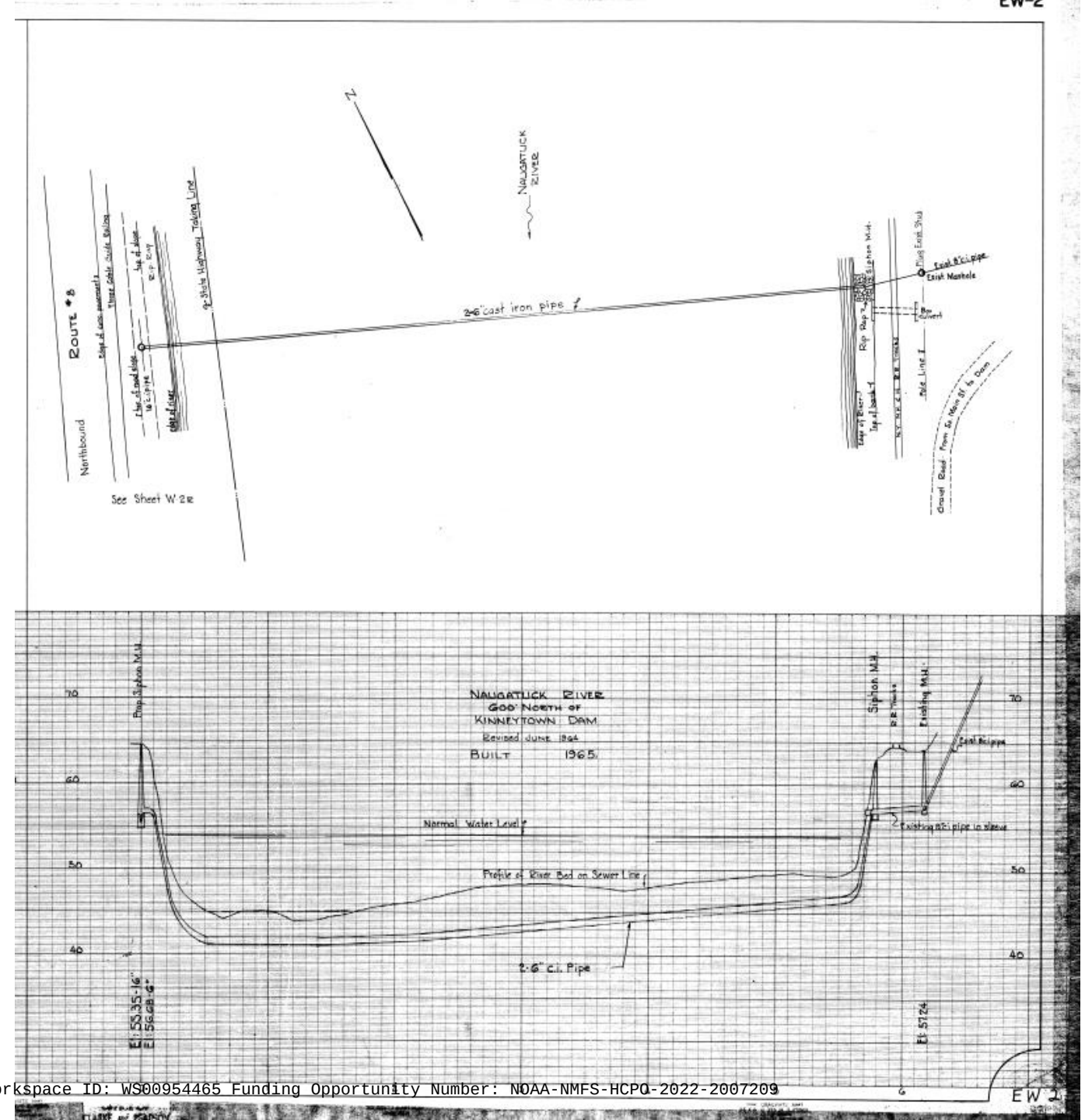
1965 As-Built of the Sanitary Sewer Siphon Crossing the Naugatuck River at the Treatment Plant Downstream of the Kinneytown Dam





Sheet 20

1965 As-Built of the Sanitary Sewer Siphon Crossing the Naugatuck River Approximately



Sheet 21

1965 As-Built of the Sanitary Sewer Siphon Crossing the Naugatuck River at Nickle Mine Brook Upstream of the Kinneytown Dam